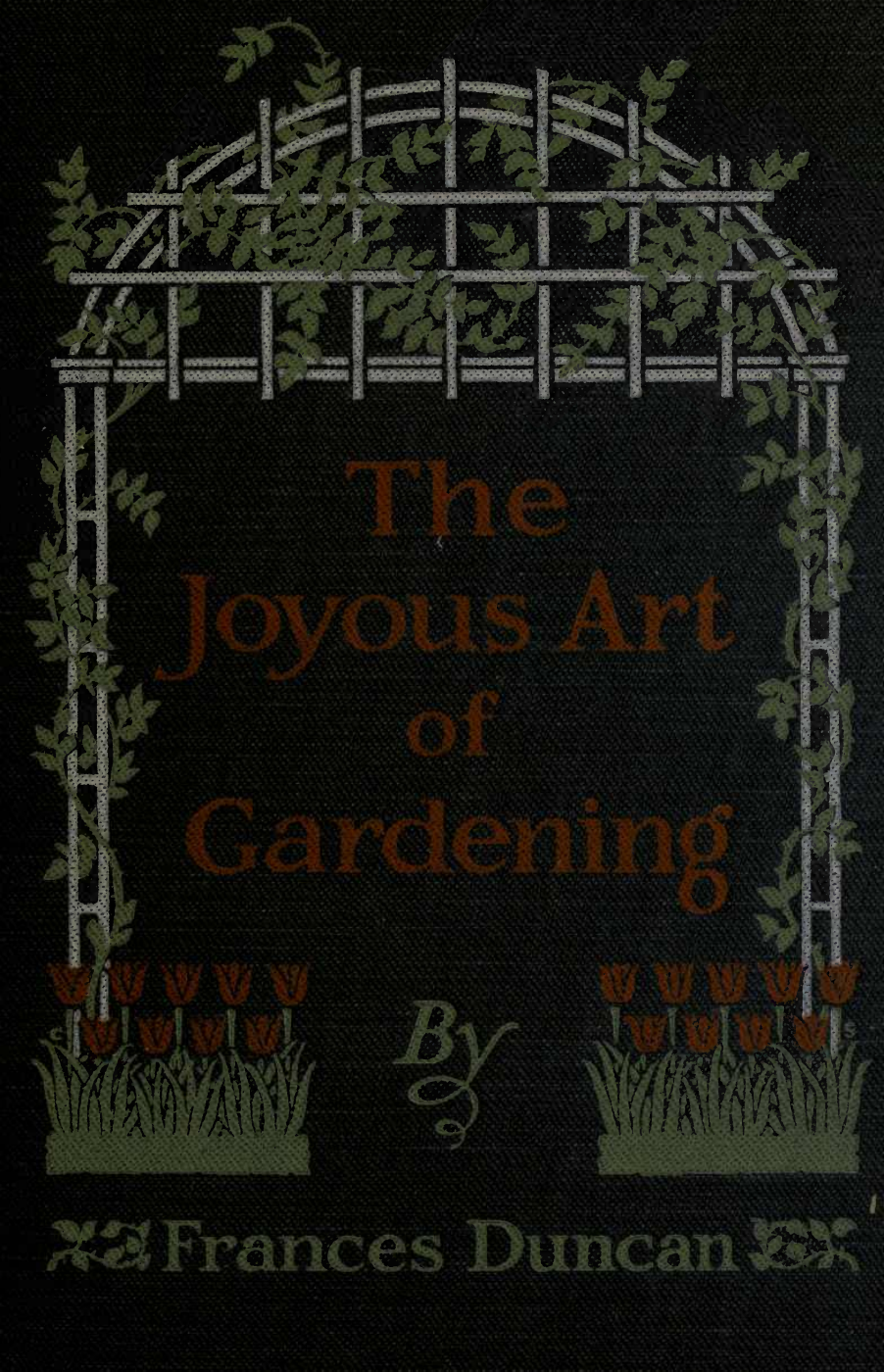
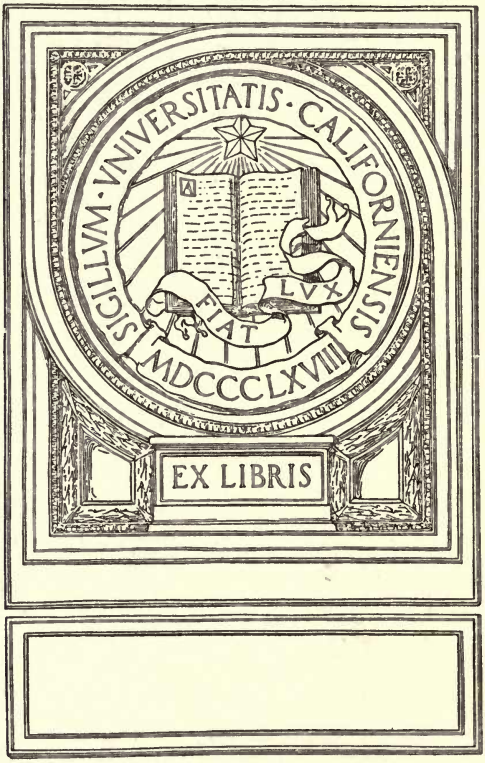

The
Joyous Art
of
Gardening
By
Frances Duncan

GIFT OF
A. F. Morrison



THE JOYOUS ART OF GARDENING

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Old-fashioned treatment of a small suburban garden.

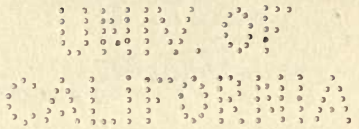
THE JOYOUS ART OF GARDENING

A BOOK OF FIRST AID TO THE AMATEUR

BY

FRANCES DUNCAN

MEMBER OF COUNCIL, WOMEN'S NATIONAL FARM AND GARDEN ASSOCIATION
AUTHOR OF "MY GARDEN DOCTOR," ETC.



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NEW YORK :::::::::::::: MCMXVII

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Published April, 1917

GIFT OF
A. F. Morrison

FA

TO

JOHN N. GERARD

WORTHY SUCCESSOR AND NAMESAKE OF JOHN GERARD
THE 16TH CENTURY BOTANIST, WHO
FROM A SMALL GARDEN AND SCANT LEISURE HAS YET WON A WIDE
EXPERIENCE AND DEEP KNOWLEDGE OF PLANTS

THIS LITTLE BOOK

IS GRATEFULLY DEDICATED

M94392

PREFACE

THIS little book is designed to serve as First Aid to the beginning gardener. It is arranged to be of use especially to the owner of the small place who plans and makes his own garden, and whose means and time are not unlimited.

Very likely the expert gardener can find dozens and dozens of omissions, and will call to mind plant after plant which might have been included, nay, even of the sort which Every Garden Ought to Have. But the expert gardener is asked to remember, that the book is meant especially for him who is not yet a gardener, but would like to be—for Pilgrim starting for the Delectable Mountains, as it were, rather than for Pilgrim arrived—and that it is with plants as it is with children: any one desirous of adding these to his establishment is safer beginning with one or two, and these sturdy ones, than by adopting a whole asylum of promising orphans.

Therefore, only those plants which are surest to grow are properly within the compass of this book. Once the garden is growing and it is easy enough to add the "silverbells and cockle-shells, and all the pretty things in a row" that the most bewildering seed catalogue may herald.

To the editors of the *Century Magazine*, the *Ladies Home Journal*, *Harper's Bazaar*, the *Designer*, and *Country Life in America*, the author is much indebted for the courtesy of allowing the use here of material which has appeared in the pages of those publications. She wishes, also, to express her appre-

ciation of the advice and assistance of Miss Rose Standish Nichols in the lists of perennials, of Mr. Robert Cameron of the Harvard Botanic Garden, of Professor Sargent and Mr. Faxon of the Arnold Arboretum, through whose kindness that excellent institution always extends its facilities with the readiest courtesy to any one whose interest in horticulture is at all real.

If this little book solves the commonest difficulties and proves of real assistance in the Joyous Adventure of a First Garden, its object will have been attained.

FRANCES DUNCAN.

NEW YORK, March, 1917.

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THE JOYOUS ART OF GARDENING

I

IN PRAISE OF GARDENING

"There be delights," says an ancient writer, "that will fetch the day about from sun to sun and rock the tedious year as in a delightful dream." Thus, and very much after this manner, the charming old prose-poet, amiably garden-mad, continues, page after page, to describe the "1,000 delights" to be found in the "flowery orchard" of his century—describes them with an abandon of happiness that suggests the rapture of St. Bernard when hymning the New Jerusalem!

In fact, barring the equally ancient and alluring pastime of going a-fishing, no hobby has a stronger grip on its devotees than gardening. At four o'clock of a summer morning Celia Thaxter could be found at work in her radiant little island plot, a sister in spirit to old Chaucer when on his knees in the grass at dawn to watch a daisy open. And these were not exceptional, not extraordinary cases of devotion; they were merely typical exponents of the true gardener's passion.

Nor is this tense enthusiasm fleeting. Not in the least! It is no more transient than the bibliomaniac's passion, no more evanescent than the collector's zeal, which only death can quench. It is no sudden, youthful fervor; indeed, it is rarely found in youth at the storm-and-stress period, while it may be observed to be strongest in those for whom the days of wild enthusiasm are over. The bachelor clergyman or the quietest of spinsters, for whom other passion is non-existent, will yet lavish on their gardens enough devotion to have won

the heart of the most obdurate of persons, enough tenderness to have sufficed for the mothering of a dozen little ones. A garden is the world of the recluse, the passion of the lone man or woman, the diversion of statesmen, the recreation of poets and artists of all ages—except, perhaps, musicians, who may be overcareful of their hands. It is the plaything of monarchs, the solace of the prisoner; it is also the delight of little children.

No passion is more democratic than that of love for a garden. The love of literature, of art, or of music can, it is true, occupy mind and heart with equal completeness, but in all of these the joy of creation is limited inevitably to the gifted few. The passion for a garden, however, and the joy of making one may exist alike in millionaire and washerwoman; the day-laborer, returning from his work, betakes himself to tending his rose-bush, and so, perhaps, does the banker; learned and illiterate may be alike in their devotion to their gardens; to saint and sinner, otherwhere poles apart, it is common ground; ill-tempered and serene are one in their tenderness for their plants. "Oh, I forgot the violets!" exclaimed Landor in a shocked tone after (according to tradition) hurling his man servant through the window to the violet-bed below.

Since so much enjoyment is to be had in the cultivation of a bit of ground, it is a pity that it is ever missed and that the care of garden and grounds should become for any one a perfunctory thing. Yet in suburb after suburb one sees lawn after lawn whose treatment is wholly perfunctory; they are as ready-made and uniform as the contractor's houses, made by the dozen, that they garnish. These little yards reflect no more the thought and personality of the owner than a sample drawing-room or dining-room or bedroom fitted up in a department store radiates charm and personality. Evidently the

same nurseryman's agent has been about and sold to each owner the same small evergreens.

Very noteworthy it is, that those to whom the garden is a source of vivid pleasure do a part or most of the work of it themselves. This practice seems to be a necessary precursor to the happiness. A garden may make incessant demands on the time and energy and patience of its author—demands as exacting and continuous as those of a child on its nurse or mother, and yet, like the child, its very dependence makes it the more beloved.

For real enjoyment the garden must be considered as a work of art, not as a "chore," and one's plants as friends and intimates, not employees. A garden on a business basis is another matter. It may yield a certain amount of pleasure and satisfaction, but never the joy of a garden grown just for itself. The plants must conform to certain standards; definite results are expected, and failure to attain these means disappointment and loss.

One may smile at a gypsy kettle filled with coleus, at a boat marooned with its cargo of flowering plants in the midst of a sun-scorched lawn, but none the less these express a definite, creative effort on the part of the author and are probably the source of keen pride and enjoyment. The impulse is the same as when the millionaire drags marble exedræ to an Adirondack lodge and worries a rustic bungalow with a Florentine well-head—and no more discreditable.

One of the sweetest characteristics of a garden—chiefest, I think, of its "1,000 delights"—is that its charm is wholly unrelated to the amount of money spent upon it. The simplest of little gardens may have more of this lovely and endearing quality of charm than the most pretentious of estates. For garden art for the sake of aggrandizement always misses

charm. The display may have cost thousands, but if the purpose is to make as startling an effect as possible for the astounding of the visitor or passer-by, rather than the pleasure and happiness of the owner, such gardening must always miss charm. Like the prayer of the Pharisee, it "has its reward" and is seen of men. The kingdom of art, no more than the kingdom of heaven, is entered into that way.

The garden art for which I hold a brief is within the reach of every one who loves the plants enough to place them where they can grow happily and be in harmony with the house, the situation, and each other.

Much has been written about the beauty of wide stretches of turf, about the wisdom of massing the shrubbery and "creating a park-like effect," which is an excellent thing when the grounds are spacious enough to admit of such treatment. The wide greensward framed in flowering shrubs and trees is restful, indeed, to look upon and should be a part of every place blessed with sufficient ground. But the garden which is loved and labored in and enjoyed to the utmost is the flower-garden—a flower-garden close enough to a man's house to be lived in, not one which has for its purpose the making of an effect from a distance. A rose is the same whether grown in a nursery row or trained on a trellis around one's window, but the latter becomes a friend and intimate and is beloved accordingly, increasingly as the years go by. It is for this reason that they never become really "at home," that the so-called "bedding plants" are few in the gardens of real flower-lovers. They are transients—outside talent brought in temporarily for display—and so are not comparable in interest with the little crocus that comes up every year in the grass and may be loved and looked for.

To most amateurs the real fun of gardening is in the flower-

garden, with its incessant claim on one for attention—incessant, as I have said before, as that of a baby on its nurse or its mother. And (like the infant) it yields to its admiring parent "1,000 delights," although less-prejudiced observers may fail to locate these. The tiniest garden has room for infinite possibilities and gives room for endless experimenting—now in the naturalizing of some wild flower, now in the cultivation of some garden sport. The sight in a pasture of a squat little apple-tree, cropped year after year by cows until it is as much of a shrub and more than a Japanese quince, suggests that one might make a hedge of apple-trees. And how interesting to try! In his New Hampshire garden, an artist, Mr. Stephen Parrish, clips his *Spiræa van Houttei*, after it has finished blooming, into as stiff a hedge as English holly, and it finishes the summer as a formal background for gorgeously colored phlox. Another artist-gardener has made house plants of tiny hemlock-trees and used the common pine for topiary work.

No less a gardener than Robert Cameron, of the Harvard Botanic Garden, holds the theory—like that which some of our most advanced psychologists hold in respect to human plants—that it is among the "discards," those rated as probably defective, and, in the garden, those weaker plants that are pulled out when thinning is done to give room to their lustier brothers—that it is among these that the genius, the new and rare sort, will be found, and that for the plants as well as for the human youngsters these are always worth tending in a secluded garden corner, to see what they will come to.

Another of the delights of a garden is that it is as changeful as life itself and as capable of experiment. In other arts or crafts what's done is done. One may do better in the future, but for the present work—there it is, and so it must

stand. On the other hand, the peculiar charm of the garden is that always one may change it, better it, shift this plant where it will be happier, separate two whose colors quarrel, plan some new effect here or there. To many a gardener there is nothing more exhilarating than making changes, planning a new pool, a new trellis, or steps; there is pure joy in thinking what one will do next year. Always there is the "next year." In this lies the garden's long fascination.

In this America of ours we have large estates a-plenty and some elaborate gardens, but of lovely little gardens we have sore need. And sore need we have also for keeping what loveliness we have inviolate. In every suburb the contractor is busy wiping out the wild beauty with a baleful industry and thoroughness which makes his progress like that of the army-worm or the seventeen-year locust; not a tree or a bush is left in his path which might hearten the gardening of some new-comer; burdock and five-hundred-year oak-tree fare alike, and instead springs up his ideal—the checker-board of treeless streets lined with close-set houses, their outward form as exactly alike as the clothes of asylum orphans. It may be progress, it may be improvement, and yet improvement, as St. Paul says of science, is often "falsely so called." In a community where charming little gardens were the rule, such activity would at least be modified in the interest of beauty.

Whoever is keenly interested in civic or social betterment can begin in no better way than in making his own garden lovely, for never did any one make a garden without being the better and happier for it; and one of the sweetest effects of gardening is that the art is both contagious and infectious. I doubt if ever any one made a garden without some other being minded to go and do likewise. Long before the roses have covered his bare fence or even his bulbs begun to poke

their noses above the chilly earth, some neighbor, who has been watching, is sure to go a-gardening also.

"I go a-fishing," said St. Peter, and the inevitable response is that of Thomas and Nathaniel: "We also go with thee!"

II

SUBURBAN GARDENING

Gardening in the suburbs is by no means as easy as it seems. It ranks with "How to dress well upon a slender purse," "How to entertain charmingly on a limited income," and other modern questions, which, when ingeniously solved by folk of peculiar gifts, seem to the onlooker to present no problem at all.

The owner of a large estate, or of a small place, if blessed with an abundant bank-account, may seek out a landscape-gardener of approved worth and on broad and accustomed shoulders lay all his responsibilities, while for himself there remains only the pleasing and comfortable task of criticising. But for the average owner of the suburban place there is no such convenient refuge; either he must work out his own salvation or let his place go gardenless.

The suburbanite is not left unaided or unencouraged in his necessity; he is the recipient of much advice. It is he who is constantly urged in large and easy phrase to "beautify his grounds"; for him in horticultural papers appear plan after plan wherein numbered circles stand for shrubs, and scallops, like the marks of surf on the sand, for herbaceous "borders." It all seems simple until he tries to apply the plan to his own place, only to find, after repeated efforts, that his mind begins to wander under the strain, like a lost plainsman's after days of thirst; for much lies between plan and performance.

When the suburbanite goes a-gardening he may have in

his mind a charming picture of what his place is to be—a veritable little Eden, rare and secluded, "all grace summed up and closed in little." But how is he to accomplish this? His may be a suburb where the street presents a pleasing and uniformly "parked" appearance. Village improvement societies have bereft him of his fences, and dogs may work havoc at will among the flowers. Then, too, when the street is "parked" and the planting is much alike, there is very little seclusion, and a suburbanite who, if he lived in the country, might boldly experiment and perhaps achieve something wholly charming feels a bit shamefaced about following his heart's desire under his neighbor's scrutiny; for gardens, like children, go through an "awkward age," when only the parent's eyes can discern the coming beauty. So the dreamer sighs inwardly for his rose-arbor, and, like his neighbor, plants *Hydrangea paniculata grandiflora.*

Besides the general aspect of the street, there is the neighbor to consider; for how can a peacefully inclined suburbanite plant crimson rambler roses on a trellis while within three feet are *grandiflorum* rhododendrons, the magenta blossoms of which will fight the roses as long as a petal stays on the bush? And if he plants to harmonize with his neighbor and the street, where is the fun of gardening?

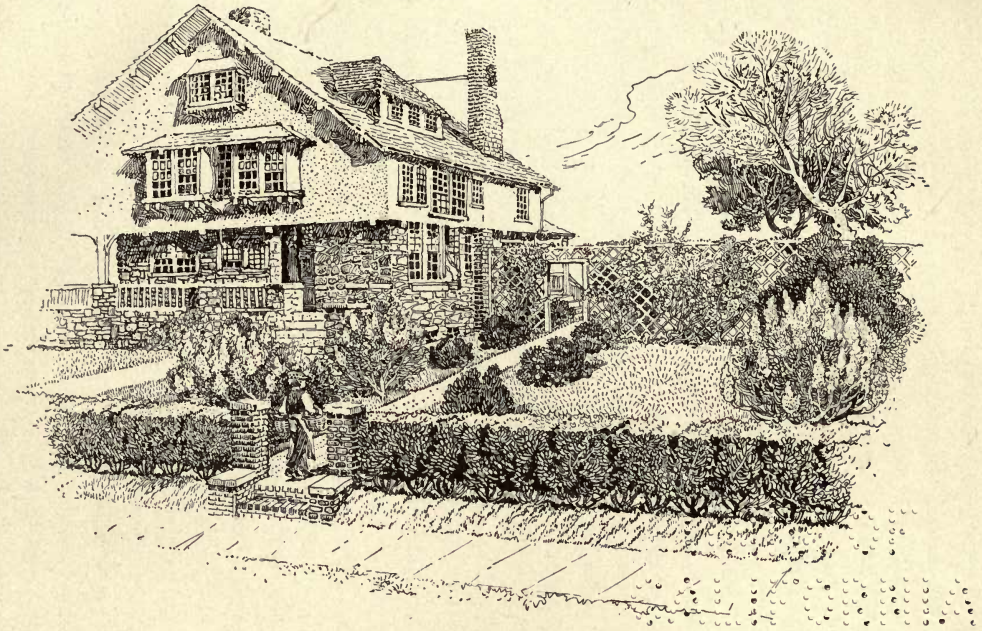
The simplest way of meeting most of the difficulty of the street and the neighbor is to compromise—to divide the grounds into the "street side" and the "garden side"; to "render unto Cæsar the things that are Cæsar's," and on the street side plant to promote the general welfare, so that the house may with some degree of grace take its place among its fellows, while at the back of the house one may cheerfully engage in the pursuit of individual happiness and, planting after the imaginations of his heart, make his garden to suit himself.

As for the practical ways of arranging this division, they are various. When the space is small, a lattice or an arbor with screening vines will serve; when the planting in front is irregular, an irregular group of shrubs will make a barrier in fact, while in appearance there is none. If the front space is shallow, an opening in the barrier which gives a glimpse into a garden beyond will make the street side seem more spacious without diminishing the privacy of the garden side.

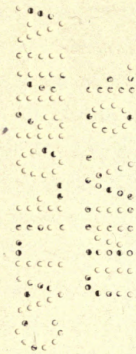
This separating of the front from the rear of the grounds is a thing often done in older gardens not only in the South, but about Salem, Newburyport, and near Philadelphia; for in the older gardening the provision for privacy, the making of the garden a place of quiet and retired enjoyment, was considered of greater moment than that the passer-by should be impressed by the size and handsomeness of the estate.

The first task to which the suburbanite addresses himself is the matter of making his house at home in its environment, of "tying it to the site," as gardeners say, so that it shall seem securely anchored and not likely to slip its moorings. When he begins literally "from the ground up," then he seeks out a landscape-gardener or an architect of gardening proclivities and lays out the entire space—plans not only the house, but garden, garage, or stable, so that all may fit together and make a consistent and harmonious whole. This is comparatively easy.

But if, instead of building, he rents or buys or inherits his house, he must make the environment fit the house, in the achievement of which there are several uncharted rocks ahead that may wreck his garden enterprise. Houses differ. One can no more prescribe a treatment applicable to all expressions of the builder's art than one can prepare a medicine which will cure every human ill; although at the same time there



A lattice to screen the garden and drying-yard from the front lawn and street.



may be principles capable of wide application and decalogues of gardening sins to avoid, just as there are simple and wholesome rules which suffice to keep a person in ordinary health.

Roughly speaking, architecture in the suburbs shows two widely differing types. There is the stately and imposing "Colonial" house, by which designation nowadays is meant a house of good proportions, balanced, of the square and substantial type which held sway until about 1830. At the other end of the architectural programme is the modern cottage, picturesque and piquant, which, when seen at its best, is a building full of individuality and charm. These are the two extremes, while between them are innumerable houses partaking slightly of the nature of both, and leaning with more or less definiteness to one type or the other.

Take first the difficulties which beset the Colonial house in the suburbs, largest of which perhaps looms the problem of a house on a lot too small for it. If newly built, its author may have desired simply to put up as large a house as he might on the ground at his disposal, building with a cheerful indifference to the surroundings. If an old house, probably it once had its setting of stately trees and a fine old garden; but other houses have encroached on its garden space, new streets have been cut through, until its draperies and garden accessories have been shorn like the clothes of the old woman who fell asleep on the king's highway. Near Boston there are many houses so afflicted. A low stone wall separates the place from the sidewalk, and usually a curving path leads across the tiny lawn to the doorway, or a semicircular drive makes the approach and there is no walk at all. On each side of the path or beside the door and against the house are groups of shrubs and small evergreens, but the shrubs look futile and inadequate in comparison with the house, and the grassed

space is uncomfortably small. The reason for its discomfort is not far to seek, for the chief beauty of a lawn, aside from mere texture, lies in the contour of the land, the gracious curve and sweep of the surface, the play of shadows which great trees throw on the grass at their feet, excellences for which a lawn twenty by fifty feet gives little room.

Now, a square and substantial Colonial house, if it be well built and of good architecture, is not a cottage to "nestle," or a little bungalow to play at hide-and-seek among concealing shrubberies; for it is too large to nestle becomingly, and coquetry is not its line. There is no reason why such a house should not face the world boldly and unashamed, and in the period to which the best of Colonial architecture belongs—the Georgian—that is precisely what it did. On country estates the approach was a stately avenue of great trees; in the city or town houses, a fence, the design of which was in keeping with the house, formed the boundaries, and the whole space inclosed was subordinated to the house.

If, therefore, the suburbanite indulges in a house of 1750, he had better accompany it with a garden of the same period. It is not necessary to search from Dan to Beersheba in nursery catalogues to find the precise flowers that great-grandmother used to plant, but the planting can be done on these old lines, and house and grounds considered as a whole. If the house fronts the street squarely, as it probably does, and is blessed with a beautiful doorway, then have a broad, straight path from that to the gate, as wide as is becoming to the door and porch. This path may have a low edging of box or be bordered by privet or lilac-bushes, anything one likes: the important thing is the straight approach. On each side of the path lies a little garden, so devised that it fits exactly into the space. Its paths may be grass or gravel, the geometrical beds may

be outlined in box or anything else one chooses; but the design should be symmetrical. Here the formality stops, and within the beds the planting may be what one pleases—tall hollyhocks and larkspurs, if the suburbanite stays in his house all summer; but if it is used in winter, then the beds are best outlined in box, with tree-box or slender, pyramidal evergreens to accent important points in the little garden. They will not interfere with the summer display, and will give an air of comfort and well-being in winter. If the owner has sufficient moral courage, he will put up one of the beautiful old fences that are in keeping with his house.

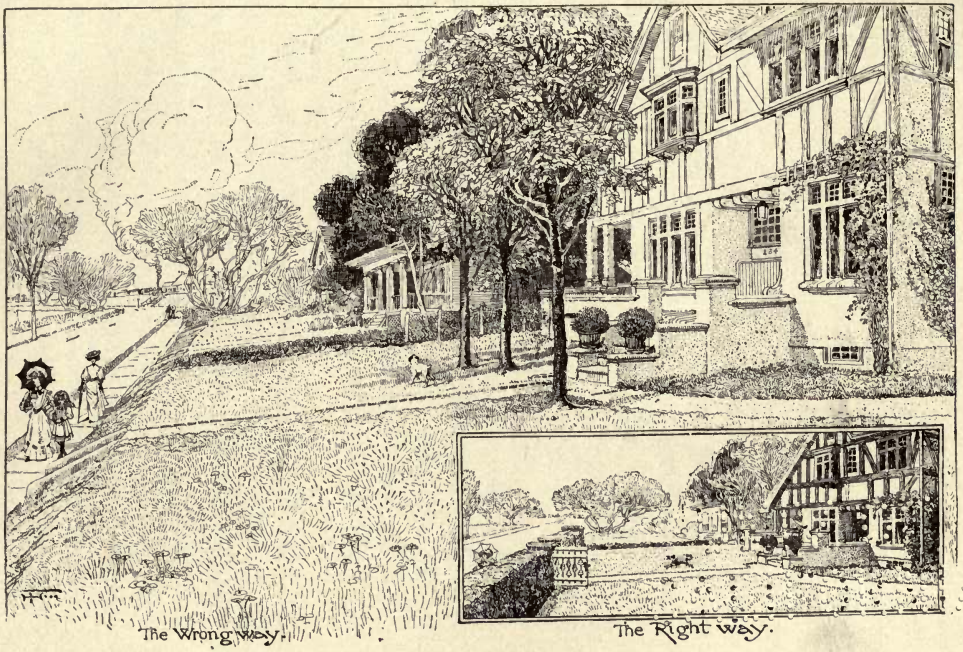
Sometimes it happens that the house stands above the street-level. Now, a house of a staid and dignified type does not care to perch, as a bungalow might; it should have a broad and ample site whereon it may sit comfortably. Therefore, instead of having a gradual slope, it is better to make a terrace of sufficient depth to be becoming to the house, guarded by a balustrade which, like the fence, will be in keeping with the architecture of the house. Such a terrace lends itself very readily to decorative gardening, and clipped evergreens or pots of bay-trees on each side of the short flight of steps will give the house a finished appearance.

At the opposite end of the architectural scale is the cottage, which, in an ill-fitting environment, is capable of quite as much suffering as a Colonial house, although the cause of its misery is different. Now, a cottage is by nature of a feminine disposition: it craves accessories; it should be vine-embowered and rose-wreathed; in verse it nestles rather shyly amid its garlanding greenery. When an architect designs one, he fondly depicts it framed by tall and protecting trees, its porches and porticos embraced by abundant vines, and shrubs nestling at its feet: all of which are to the cottage as appro-

priate millinery is to a woman's face. Yet when his vision materializes, there stands the cottage planted on a bare site, quite bereft of alleviating shrubbery; its path may curve with a futile coquetry, but it has not even a shrub to crook its elbow about. Sometimes an even worse unkindness befalls, and we see it placed on an unrelieved elevation, where only a building like the Acropolis of Athens could stand the architectural strain of the position.

Such a house, to feel at all comfortable, ought to be fairly embedded in green. The porches should have vines, the foundations should be masked by shrubs, and there should be shrubs or low-growing trees for the paths to curve about. If the arrangement of the street permits, a hedge and a little gate will be the gardener's first move, with a few tall shrubs or low-growing, flowering trees behind it. A very little planting near the street will afford complete seclusion, for a comparatively low obstacle near the sidewalk is a better defense from the eyes of the passer-by than a much taller one planted near the house. The latter only obstructs the occupant's vision. If the suburbanite may not plant a hedge, then a grouping of shrubs will answer his purpose.

The chief charm of a cottage, it should be remembered, is its individuality, and if, instead of being properly framed, it stands between cottages of a totally dissimilar type, this is difficult to preserve. Therefore it is well to cut off also the neighbors. I remember a little house on Long Island which was charmingly managed in this respect. It stood on a long, narrow lot far back from the street, with a neighbor on each side not more than fifty yards away, and yet the little place was absolutely apart and a thing by itself. The houses on each side were of different types, but only their roofs were visible. From the house one could not see the street, the



Ineffective and effective ways of securing privacy for a house slightly above the street level.

path to the gate losing itself in flowering dogwood and viburnums. There was a stretch of lawn framed in blossoming trees, but the boundaries were not "planted out" or otherwise defined; instead, the flowering shrubs and low-growing trees parted, giving glimpses across the neighbors' lawns and the effect of much more ample grounds than really existed.

It requires no small amount of skill to make an irregular plantation look as if it had "just growed." Imitating nature is another of the things one is advised to do, but this is not so easy as it looks. Amateur gardeners have to remember chiefly that in grouping shrubs one puts the taller-growing ones at the back, and if any seem particularly uncomfortable, to dig them up in the spring and plant them where they will be a better fit.

Between the Colonial house and the cottage are, as I have said, many kinds of houses, and the moral of all this is that, if the house is dignified and symmetrical, it needs a dignified and balanced approach; if irregular and inclined to be piquant, then the planting should match it, fitting the house as the punishment fits the crime.

Next comes the treatment of the outbuildings. Northerners seem to feel the moral necessity of turning all the ground about their houses into what gardeners call "dressed ground," not permitting an inch of it to be in anything but "calling costume." Though there would be as much reason for throwing the house into one room and having the kitchen and laundry tactfully concealed from the drawing-room by screens and potted plants as for treating the various offices of the home as if they did not exist and shutting the eyes firmly to the fact that clothes should be dried in the air and sun. There is no reason in the world why a well-enclosed drying-yard may not be provided and ample space for linen to bleach on the

grass in the good old fashion, and no reason why washing itself may not be done in a vine-covered arbor instead of a hot kitchen. All of which would make much for the comfort of life in the suburbs and the successful liming of that domestic bird of passage, the servant.

A drying-yard, moreover, is not difficult to arrange. The essentials are that it should be convenient to the laundry and placed where it will not obtrude itself on the garden or lawn. There are a score of ways of screening it—a lattice, a grape-trellis, tall-growing shrubs, such as lilacs, viburnums, or rose of Sharon. A hedge of hemlock will give welcome protection in the winter, but since this is comparatively slow-growing, a trellis and vines would need to be employed as an understudy until the hemlocks were ready to act their part. The lattice is the simplest and most expeditious; on it may be trained vines or climbing shrubs, and, so dealt with, it makes a delightful background for the flowers of the garden. It may even open into the garden through a fetching little gateway and the laundress, when hanging out clothes, may look down a garden path and be blessed with the survey of a pleasing vista.

As for the outbuildings, while they should not occupy the centre of the stage and the calcium light, they may certainly be becomingly disposed in the background. On a lovely little half-acre place in Charleston there are stable and servants' quarters, chicken-runs and turkeys, all comfortably provided for, with ample room besides for the most charming flower-garden in Charleston. But the arrangement is very simple. The house stands about thirty feet from the street and faces east; on the south side are the piazzas, overlooking the lawn, which runs between a vine-covered wall and the house straight back from the street to the flower-garden. On the north, between the house and the boundary wall, are the entrance-

A shaded walk from the kitchen to the vegetable-garden.

gates, and the driveway leads direct to the stable, it being assumed that visitors are able to walk the twenty or thirty steps from the street to the house. Along this boundary wall are the servants' quarters, a low brick building, then carriage-house and stable, then the chicken-run, which is narrower and extends to the end of the lot. Between chicken-run and garden is a woven-wire fence; in front of this there is a rose-trellis. A little arched gate at the end of one of the paths across the garden admits to the chicken-yard, through which the hens may look, as Moses into Canaan, but not enter. Before the stable and behind the house is the service yard, enclosed by a fence. Here there is a huge hackberry-tree, and from this yard also a little arched gate leads in line with the rear door of the house and opens into the garden.

This is merely one way; there are many others. There is no reason why a suburban place should not be adapted to the convenience of its owner, why it should not have a tool-house, a cold-frame, a little workshop; why the stable or garage should not be conveniently placed. They need not be obtrusive, but they also need not skulk. In short, one should remember his Longfellow and his childhood:

> "Nothing useless is or low;
> Each thing in its place is best."

The crux of the matter is to get the thing into its right place, which is what Mr. Longfellow did not tell us.

After the house is peacefully at anchor in its environment, on friendly terms with its neighbors, and the outbuildings are properly and comfortably disposed, the suburbanite, with a sigh of relief, turns to his own preferred gardening. One may have no end of amusement in a suburban garden. If horticulturally inclined, one will have his tiny greenhouse and cold-

frames or a little experiment plot, try espalier fruit on his walls, or specialize in some one thing and be happy. The bird-lover has only to plant white mulberry and the white-fruiting dogwood, and straightway the birds for miles around will make his place their preferred hostelry. For what to plant is like Dr. Johnson's advice on what to read—precisely what one pleases.

Naturally, however, one chooses plants that will do their prettiest when the owner is at home, and not be so impolite as to bloom in his absence.

If the suburbanite is away all summer, if he has but little time or small inclination to bestow what time he has on his garden, it is wiser to eschew a flower-garden and turn the garden space into greensward framed by flowering shrubs and blossoming trees, with early-flowering bulbs in front of these, and tucked away in corners, wherever there is room. In front, if the place is open to the street, may be Rugosa roses, barberry-bushes, and perhaps hawthorns, stoutly enough armored to take care of themselves against stray dogs and children.

There are a host of exquisite early-flowering things which are rarely planted, but which would suffice to keep a garden as far north as New York abloom from February on until late November, and then stout evergreens and scarlet-berried plants to give cheer until the first touch of spring comes again with the snowdrop and the darling blue of the little Scilla, as exquisite in color as October gentians.

So planted in shrubs and trees and flowering bulbs, the garden will go on with as little trouble to its owner as Tennyson's brook, though it is not so much fun as a flower-garden.

One of the advantages that a flower-garden has over the mere skilful grouping of shrubs and trees is that while the latter planting "stays put," the flower-garden may be varied

indefinitely. In fact, one of the most diverting things a gardener can do is to move plants about in his garden and change its scheme; as a remedy for the "blues" it is equal to Mrs. Kemble's prescription of rearranging the furniture. For gardens change; they alter, as children do. Larkspur and phloxes must be dug up and separated; every three or four years roses should be taken up and their beds made anew for them, which ever tempts the gardener to making a different arrangement. For unless the gardener interferes and separates his flowers, lovely and peaceable as they seem, they engage in as bitter warfare as ever did rival powers for the possession of disputed territory. If near the house, a small formal garden ought to be on an axis with the house; when one steps down from a porch, the garden, if just below it, ought not to seem below. For the laying out of paths and beds Saint-Gaudens had a beautifully simple method. He "tried on" the garden dress; laid down laths to indicate where the paths should be, moved them nearer together or farther apart, to widen or narrow the paths, until they and the beds "looked right." Carrying this neat and practical method a bit further, one would stick up a bit of brush where a shrub is to be. This trying on of the garden's dress may interest and amuse one's neighbors, but it will save the amateur the making of many mistakes.

As to what to plant, that depends upon climate and soil and whether the garden is for all the year round or merely for summer and autumn. If the place be lived in during the winter, then a hedge-like thorn, with its gay scarlet berries, a few evergreens marking important points, and edgings of dwarf evergreens or box will give no small amount of cheer and emphasize the fact that the garden is not dead, but sleeping.

If you make a rose-garden, it is far more effective when the roses have a setting of green. The thorn hedge I have just mentioned would be excellent for this. It takes little from the soil, would be dazzlingly white with blossoms in early May, which would fall just in time that its leaves might make a background of sober green for the roses; and in autumn again would be brilliant, holding its berries well into the winter. This would keep a rose-garden from looking bare and uninteresting during the "off season." In the Charleston garden above mentioned, which is essentially a rose-garden, the owner has a beautifully simple method of caring for his garden-beds. There are rose-arbors, rose-trellises beside the paths, roses on the garden walls. The garden-beds are as large as may be conveniently reached, the cages are of wood, and when the roses are past there are marvellous poppies and larkspur of exquisite hue. When the time comes for remaking and enriching the garden-beds, the chicken-yard soil to the depth of six inches is put on top of the beds. This is not only rich, but full of seeds. The flowers spring up apace, the gardener pulls up those that he does not want, and throws the stalks to the ever-useful chickens. As Maeterlinck says of another device, "It's curious, it's practical, and quite noiseless."

Another blessedness in a garden which suburban folk miss more often than flowers is comfort, and rarely is there any provision for this. Why should we not plant so that we have shade in the summer when we want it, or give a path shelter from a northeast wind if it is accustomed to freeze our marrow? Why should we strive frantically to make plants grow under a wide-spreading tree, when we might plant a comfortable garden-seat, and add to that a table where one might be blessed with tea as often as a heroine of Mrs. Humphry Ward's? I remember a wide, low arbor at the rear of a Southern town

house. Underfoot was a brick path edged with violets, overhead were grape-vines, and on each side, half under the arbor and half outside, were peonies and irises. No one thought of calling it a pergola. It was merely the way to the kitchen-garden, of which one had a glimpse through an archway in the tall hedge of privet at the end of the path. The mere charm of the arbor would tempt any housewife to go through it and inspect the fresh vegetables.

We Northerners seem to plan our grounds to be looked at from the porch, and not lived in at all; for which reason our gardens pose; they seem as self-conscious as a child in unaccustomed new clothes. One longs to see them look as if they were lived in and played in, and made to fit the needs and uses of their owners.

A small garden may be limited in scope, but it often has possibilities of charm that a large place has not. A miniature may be a better work of art than that portrait of his family which the Vicar of Wakefield was unable to bring into the house.

Charm is an exquisite quality in a garden, but as rare and elusive as a hermit-thrush. It comes of itself when plants are happily placed, feel at home in the garden, and begin to be on terms of friendly intimacy with every one. Mere expenditure is powerless to bring it in. The garden may be a blare of color and an admirably arranged show-case of handsome plants, but it will be as sounding brass or a tinkling cymbal if the love for the plants is not there, while the simplest of gardens may have an abiding and inescapable charm if the gardener has a real love for it. When our gardens are loved enough, there will be no question about their being charming.

III

FITTING THE GARDEN TO THE HOUSE

If the planting about one's house is to be to any degree satisfying—a rare and blessed quality—it is of utmost importance that the house itself should be taken into consideration. No woman, unless she be of unsound mind, buys a gown without a thought of the size and complexion of the wearer, or of the uses to which it is to be put; and, by the same token, no gardener will plant his grounds without paying careful heed to the house they are to adorn—what manner of house it is, what its "complexion" (in the old sense of the word) and its individual needs. A scheme of planting which may be admirable in relation to one house may prove quite "unbecoming" to another. The gardening about an old farmhouse, even if newly bought for a country home, should not be identical with that adapted to a modern suburban home, any more than a variety of millinery appropriate enough for a young society woman is precisely the right thing for a dear old Quaker lady. Every house has some degree of individuality—if it hasn't it ought to have it, or it must borrow it from its owner —and the planting should be in keeping with it.

All of which may seem apart from the "broad, practical matters" of which we hear so much; but, more than any other one cause, it is our present almost uniform custom of planting with a cheerful indifference to one's house and one's neighbors which makes our American gardening, especially in the

suburbs, one of the things which try men's souls; while one might almost say that in suburbs and villages the chief end of gardening, as far as the home grounds are concerned, is to take away the orphaned appearance of the house, to make it look as if it belonged to some one who cared for it, and as if the bit of ground on which it is set down were really its home.

The color of the house is another matter of which, in planting, the gardener should take notice. This, of course, may be altered, and when having the house painted it is not a bad idea to bear in mind its possibilities as a background for plants. I once knew a worthy lady who painted her house to harmonize with some magnificent rhododendrons which grew near it, and every passer-by who admired the rhododendrons blessed her unaware. Yet only around the corner, beside a house of reddish brown, was an unhappy azalea—aflame in that crimson-magenta which, as far as quarrelsomeness is concerned, carries a chip on its shoulder—and not even an evergreen between to break the violence of a color effect which would almost have knocked down a Japanese gardener! Far from enjoying the blooming of the unfortunate plant, one could only be thankful when it was over.

In order to avoid such casualties I give a few hints for some shrubs and vines which may safely be planted near the house.

For a House of White Clapboards with Green Shutters

Try some of the following:

VINES

Wild grape.
Wistaria.
Roses—Dawson or Débutante or Wichuraiana.

SHRUBS

Lilac.
Syringa.
Spiræa van Houttei.
Spiræa Thunbergii.
Upright honeysuckles (*Lonicera Standishii* or *L. fragrantissima*).
Rugosa roses.

As for the usual vines, the Crimson Rambler is too violent a contrast, and after the blossoms are past the foliage is not particularly pleasing. The Japanese honeysuckle (*Lonicera Halliana*, as nurserymen call it), luxuriant as it is, hasn't a "good-enough figure" to stand the test of the white background, while the wild grape-vines with their rare beauty in leaf and stem show to perfection. One should resolutely turn one's back on variegated althæas and weigelias, or red-leaved Japanese maples. Nasturtiums also form too harsh a contrast planted directly against the house, but peonies, phlox in shades of pale rose and salmon, larkspurs, Japanese anemones, or pompon chrysanthemums would not quarrel.

If the House is of Red Brick

VINES

Wistaria.
English ivy (if south of New York).
Clematis paniculata.
Fruit-trees grown against the walls.

SHRUBS

Snowball.
Syringa (*Philadelphus*).
Exochorda.
Deutzia.
Spiræa van Houttei.
Lilacs (paler shades, such as Josikea).
Magnolias (*conspicua* or *stellata*).
Box (but not against walls).

Flowers had best not be grown directly against the house, though narcissi, lilies-of-the-valley, and pale-lavender irises might find a place among the shrubs.

Against a House of Colonial Yellow

VINES

Wild grape (*V. Labrusca*).
Actinidia (a peculiarly rich green—grows fairly well in the shade).
Bittersweet (*Celastrus scandens*).
Clematis.

SHRUBS

Any of the previous list, also
Japanese snowball (*Viburnum plicatum*).
Box (not close to walls).
Kerria Japonica.

It is best not to grow flowers directly against the house unless with box borders and plenty of green and white. Keep away red-foliaged maples, red geraniums, and bright purple asters; keep away, too, evergreens of a bluish tinge, such as the Colorado blue spruce. Anything of a bronze-green will be charming.

The Small Frame House Painted Dark Red

VINES

Actinidia.
Boston or Japanese ivy (*Ampelopsis tricuspidata* or *Veitchii*).
Japanese honeysuckle (*Lonicera Halliana*).

SHRUBS

Box.
Rhododendron maximum.
Laurel.
Andromeda floribunda.
Spiræa van Houttei.
Magnolia stellata.
Lonicera Morrowii.

Such a house may be made to look charming in winter with hedges of hemlock and its foundations hidden by soft, rich evergreens, and window-boxes full of evergreens. Some of the dwarf Japanese evergreens could be used. It will be

better not to grow flowers directly against this house, but plant early bulbs among the shrubs.

The Half-Timbered House

VINES

Virginia creeper or woodbine.
Trumpet-creeper (especially good here).
Bittersweet.
Clematis paniculata.

SHRUBS

Almost any shrubs, provided they do not quarrel among themselves.
Lonicera Sullivanti—an old variety of honeysuckle, but its gray-green foliage is charming.
Berberis (*Thunbergii* and *vulgaris*).
Azaleas.
Kerria Japonica plena.
Lilacs.
Weigelias.
Rugosa roses.

Almost anything may be planted beside such a house—the flowers as gay as one likes, if they agree among themselves and with the shrubs; only, if one indulges much in yellows or scarlets, there should be an abundance of green in the planting. Nasturtiums are in order.

The House of Unstained Shingles

VINES

Roses—Dawson, Farquhar or Crimson Rambler (don't plant them together).
Prairie rose.
Virginia creeper.
Boston or Japanese ivy.

SHRUBS

Rugosa roses.
Japanese quince.
Berberis.
Lilacs.

Here, also, the planting may be almost *ad libitum*—as far as the house is concerned; dark-red hollyhocks are especially

charming. Orange and yellow tones are not quite so good as with the foregoing house, nor is white; crimson is a bit better.

The House Painted a Pale Brown

VINES

Wistaria.
Aristolochia.
Boston ivy.
Clematis Jackmannii.
Japanese honeysuckle.

SHRUBS

Weigelia Lavallei (a dark crimson).
Lonicera Morrowii (an upright honeysuckle with bright-red berries).
Lilacs.
Rugosa roses.

IV

THE GARDEN IN TOWN

Practical Suggestions for City Planting

In the country it is a simple matter to make a garden of a sort. There Mother Nature is a complaisant, if occasionally stern old deity, and the hampering petticoats of conventionality, as it were, are short enough to enable our worthy mother to get about comfortably. She can do something in the garden herself; and, despite the mistakes and misdemeanors of gardeners, something is fairly sure to grow. Besides, she has hordes of poor retainers over the fence ready to come in and eat up the feast if the bidden guests are in the least reluctant.

In the city it is different. Here a tall sky-scraper cuts off the light, there gas-pipes poison the soil; and Mother Nature, no longer complaisant, sits aloof and eyes the would-be gardener coldly and askance. Such conditions are not of her making. If he can get a garden out of them, he is welcome; but as for her co-operation, she will wait and see, being quite of the worthy Franklin's opinion that Heaven should help only those who help themselves, assistance being thrown away on the other kind.

The city gardener has not only difficulties, but enemies. First of these is the domestic cat. Now, the cat is to the city gardener's endeavor as the uncloistered hen to the flower-beds of the farmer's wife. He exhibits the same diabolical interest in freshly sown seeds, in newly and most correctly planted bulbs; also he is dowered with a cunning and craftiness

far beyond the reach of any hen. The cat is indeed an enemy. If the gardener is clever enough, he can frustrate the invader and make his yard a very Gibraltar against feline attempts; if he is not, he will have but a meagre garden.

In the matter of planting, there are breakers ahead. Far more than the country-place garden does that in the city yard need careful consideration, and rarely does it get it. There is so small a space wherein to make mistakes, and mistakes, when made, are so embarrassingly apparent! The city gardener sows in hope the easy flowers which will bloom for any one in the country; but these are usually those that need full sunshine, which, if they grow at all, are brown and depressed when he returns in the autumn. His roses during the long winter months are clad in straw or wrapped in unhandsome burlap, princesses in disguise, perhaps, but so completely disguised that there is little joy in their presence; while at the time when he most craves a bit of color and a breath of the springtime loveliness in his little garden, it shows only narrow plots of bare soil, brown and uninspiring, with no glimpse whatever of the good, gigantic smile that brown earth ought to wear. It is undeniably difficult for the city gardener.

But between what is difficult and what is impossible is a difference, slight, but certain—the difference between a perilous harbor and no harbor at all; and even city gardening may be managed well enough if one only faces squarely existing conditions, looks carefully at every obstacle to determine whether it is best to climb over or walk around it. As Browning puts it,

> "The common problem . . .
> Is—not to fancy what were fair in life,
> Provided it could be—but, finding first
> What may be, then find how to make it fair
> Up to our means: a very different thing."

This is the proper mental attitude for the city gardener, and with the right mental attitude much may be accomplished.

The first thing that happens is that the prospective gardener sits down not only to count the cost, which may be much or little, but to catechize himself sternly in somewhat this fashion:

Q. "What is a garden's chief end?"

A. "The chief end of a garden is to grace the house, to give pleasure to them that look upon it, to them that walk therein, to them that smell thereof."

Q. "What are the names of the months wherein I look upon my garden—July and August?"

A. "No. The months wherein I look most upon my garden are September, October, November, December, January, February, March, April, May, and June."

Q. "What plants may I set in my garden?"

A. "Those that will grace it during the months wherein I look upon it."

Q. "What conditions are they whereto my choice of plants must conform?"

A. "The situation, whether the place be sunny or shady or of partial shade; the soil, whether it be rich or poor. It is not meet to plant sun-loving plants in the shadows, nor to set shade-loving plants in the sun."

Farther on in his catechism he will reach the question:

"What are the most notable permanent features of the yard?"

This question and answer, usually the last consideration, are precisely where one's gardening should begin; for it needs little study to perceive that the prominent architectural features of a yard are the fence and the clothes-posts. The color comes and goes, the plants wax and wane, but these remain unmoved.

"Clothe ugly fences with green," advise the gardening magazines, "mass shrubs before them, let vines clamber over and conceal them." Another paper, more rich in helpful detail, urges one to "spread wire and let it be covered with gay nasturtiums, and to stretch strings that morning-glories may ascend."

This is well enough in summer, but frost acts upon the greenery like the stroke of twelve upon Cinderella's raiment: the leaves will fall; the branches show themselves brown and dishevelled; nasturtiums, pale wraiths, cling to their support like half-drowned sailors to a spar; while to the fore, by way of decoration, comes their sustaining chicken-wire, and unless the gardener is unusually energetic, there it stays, and the fence is as visible as ever, and remains visible for six long months.

But why need the fence be ugly? What is the moral necessity of a fence fashioned after the similitude of a bill-board? Why need the rear of a city house, in its contrast to the front, offer a shock to the nervous system? Is the house a lay figure that its back must be unseen and unregarded? Why may we not have a "street side" and a "garden side," different, surely, but equally respectable and self-respecting? A fence of beautiful design is not a difficult thing to compass—one that may indeed be embellished by vines, but need not be hidden to be endured. The older fences were better; some of them were beautiful, and the plainest ones had lattice atop, against which were trained Corchorus and snowball and other shrubs in a very delightful fashion that we seem to have forgotten completely.* When blessed with a friendly neighbor,

* Far better than a fence is the older, more substantial and self-respecting wall of brick, if the house be of brick; of stone, if the house be of stone. This is not suggested because of its expense. A reader who can afford an eight or ten-foot brick wall as a beginning to his gardening should invoke the aid of a landscape-gardener.

a gate between can be made a very pretty feature of the garden.

Once the fence bettered, the city gardener attacks his next architectural problem, the clothes-posts. To these the general arrangement of the yard is usually subordinated, the prevailing scheme being a ten or twelve foot deep space at the end of the yard, a narrow bed along the fence at each side, while the middle is occupied by an oblong of greensward, surrounded by a flagged or concrete path and guarded by four clothes-posts set in its four corners. Undoubtedly it is needful to dry clothes, and the yard is the most convenient place; but why make the posts a feature, and a dominant feature? The Romans, as Mr. Arthur Shurtleff pleasantly suggests, may have had their togas hung to dry in their town gardens, but they were very pretty little gardens, none the less.

There are dozens of arrangements whereby a little ingenuity can circumvent the insistence of the clothes-posts. If tall enough, the fence-posts may lend themselves to that use; a tree could serve as one of them. If the arrangements of the garden are symmetrical, as befits so small a space, and the posts are green-painted, and, instead of being treated as part of the garden plan, are simply put where they will be least noticed, the yard will have a wholly different character, and the flowers and plants and pleasure of the owner will have the first consideration, as is their right.

Freed from the tyranny of the clothes-posts, with a fence that does not implore to be hidden, but can be looked on with pleasure, even if it be in the nude, the prospective gardener draws a breath of relief, and is able to look about him with some degree of peace and comfort, and consider within himself what manner of garden he will have. For, like his house, a man's garden should fit his uses. If he is in town

throughout the summer, then his garden should be to him a place of pleasant refuge. He may not be able to compass the

"Rose grot,
Fringed pool,
Ferned plot"

of the much-quoted poet, but at least he can make provision for the simpler luxury of a green thought in a green shade.

Take a small, paved yard near one of the business streets. Great office-buildings cut off the light; one has its immensely tall brick back set squarely against the end of the lot, which for only an hour a day is visited by the sunshine. Yet here the semblance of a garden is not impossible. One could make the tiniest of summer-houses to dwarf the yard, and make it miniature instead of inadequate. Against the brick of the tall building a small fountain might be set, for water is easily had. There would be a broad shelf on each side of this whereon plants in pots would stand, to be changed for others when their glory has departed. If the soil is quite hopeless, then it is best to grow plants in concrete boxes, in which the earth can be replenished as often as needed.

Viewed in the right light, another seeming excrescence of our civilization affords an opportunity for the exercise of our city gardener's cleverness; this is the arrangement for drying clothes with which many extension roofs are adorned. It is made of "two-by-four" uprights set at the roof edge at about six-foot intervals, stayed by longitudinal boards. Now, if, instead of the defensive boards, there were a lattice of a twelve-inch square, on the outside edge one could fasten boxes a foot deep and therein plant vines—nasturtiums, morning-glories, or gourds. Enough air will come through for the clothes; there can be wide windows in the lattice. Except when utilized of a Monday, this makes a pleasant outdoor room.

These are a few instances of its use, but ingenuity is a faculty which grows by exercise, and the city yard offers problems enough to keep it in good condition.

I know one city garden half the size of the ordinary back yard which yet boasted a tiny pergola that commanded the whole domain, and here on summer evenings supper was served on a table that swung from the overhead beams—a table narrow enough to be carried laden through the doorway. There were candles in sconces against the walls, a Japanese lantern overhead, and, near enough for the lights to touch it, a tiny fountain—and all this in a yard many people would have thought impossible. It was small and shaded, with little sunlight and poor soil. Near the house there was the tiniest terrace, brick-floored, and divided from the garden by a little balustrade. The pergola was hardly more than eight feet long, in a little alcove of the garden, a spot which a less-enlightened soul might have used for a closet for tools or junk.

A place where one may sit in peace out of doors uninspected by one's neighbors is in the city a peculiar happiness, and by no means so difficult to arrange as it seems. In this matter of seclusion, barriers of shrubs are futile, since it is from high above that the batteries of eyes are trained; wherefore overhead defense is effective with the effectiveness of a parasol against the sun or an umbrella against the shower. If one wishes comfort in his garden and not a great number of flowers to care for, it would be easy to make into an arbor the whole lower end of his yard by raising the fence-posts until they were high enough for his overhead trellis. On this may grow wild grape, wistaria, or, for hasty defense, gourds. The arbor would be brick-floored, except for a narrow marginal bed at the back for violets and other shade-loving plants, with seats

at the ends against the fence, and a hammock swung from the overhead beams. Japanese screens, drawn down a bit from the top, would give complete protection. From this vantage-point a very simple garden would appear charming. It would be a tempting place for sewing or reading or afternoon tea, for it is the lack of overhead screening that robs the city garden of its privacy. And if the family cared not to use it, what a boon and lure to the servant, this out-of-door sitting-room!

The all-summer sojourner who likes to work in his garden would have his cold-frame, which is to a gardener as a nursery to a mother of a family; also a tiny workshop of good design at the end of a garden-path, where of a rainy Sunday he might work at his potting-bench in peace and comfort. Such a one would devote his whole garden space to flowers, outlining the beds in box for the sake of their winter aspect.

As for the arrangement, that is a matter of individual taste; but because the garden is small, because its shape is so plainly visible, it is specially necessary that the scale be right and the proportions good. "Naturalistic planting," as it is called, is unsafe to attempt on so small an area. It is futile to attempt disguising boundaries so plainly obvious. Shrubs must go against the walls and at the back, except the few that may be used for the purpose of definite accent. Set elsewhere, they make the garden seem inconveniently small. The outline of the beds may be as simple or as intricate as one likes. The geometrical designs of the older gardening are interesting, or one may keep the traditional centre of grass, and fit his flower-beds about it; but the usual grass oblong is too large and out of scale, unless the paths are omitted and the turf stretched uninterrupted to the flower-beds, while, instead of

the paths, tiles for stepping-stones may be used. One of the easiest ways for the amateur to determine and decide on his outlines is to mark out the proposed beds with tennis-tape, or the like, then go to an upper window and look down on it. He can tell at a glance whether the paths are too wide or too narrow or if the beds are in the right relation, and it is a simple matter to have these tentative boundaries shifted until it "looks right."

A difference in level, even a slight one, adds a very definite charm to a little garden; also, it affords space for the kind of decoration which the city gardener finds easiest to bestow. There will be steps, at the side of which he may set plants in decorative jars or pots. He can change them when their charm is fled, and set sturdy evergreens in tubs in their place in the winter. He may have a tiny terrace, a low wall against which a slight growth of vine or plant has real effectiveness. It will open to him all the range of potted trees—dwarf fruits and flowering plums and cherries. A tiny garden is an ideal place for these.

And if the city man have the garden very deeply in his soul, he will make at the foot of his yard, if the exposure be good, or at the beginning, if that be better, a house of good design, which may be glassed in completely in the winter. It would not have other heat than that of the sun through the windows, and here would be planted tender rhododendrons and camellias. Violets and pansies would bloom cheerfully throughout the winter.

One of the minor details which makes for charm in a city garden is the matter of paths. If it is a possible thing, let these be of gravel, for concrete or flagstone bring a reminiscence of the pavement into the garden which one would fain keep out.

But before the city gardener has gone very far in his garden enterprise he is confronted by another of the high hurdles that Madam Nature sets for his confusion—the soil. No honest country soil is his, redolent of clover, with a breath that is "blent with sweet odors." It may be as hard as the heart of a wicked corporation, as poisoned as the mind of a bribed juror, and the city gardener, book in hand, looks at the unlikely and unlovely, perchance ill-smelling, material, then at his book, and wonders if it be "loam," or a "light sandy loam," or any of the other Christian soils he has read about.

If one wants a real garden, and has only hard and doubtful soil, it is better to dig out the entire bed to the depth of at least two feet, put in stones or cinders for drainage, then fill in with good, new, thoroughly respectable soil. But this is an expensive process, though it might be pleasantly accomplished on the instalment plan.

Then there is a homœopathic treatment, which is often helpful. It is the "texture" of the soil, as the scientific farmers call it, that is probably at fault. In which case, coal-ashes, unlikely as they seem, well dug in, will serve as an inexpensive and effective remedy. Wood-ashes will positively sweeten soil that has grown sour and unpalatable to plants. There are certainly other fertilizers, but this is to the city man the cheapest and readiest soil amelioration. Yet he, as well as his brother farmer, is privileged to send a sample of soil to the nearest State experiment station and get definite relief in a complete diagnosis and prescription.

And then comes the planting. Very much as a theatrical manager is besieged and beset by loveliness demanding a part in his productions, the city gardener finds it difficult to turn a deaf ear to the importunities of the much-belauded garden

beauties which are bepraised in catalogues and earnestly recommended to him by his friends.

"I'm so striking," urges the Crimson Rambler; "consider how stunning a show on your fence I would make." "I know it, my dear—annihilating," responds the gardener. "But what about your foliage in the summer, and your habit of ungainly sprawling? Little Wichuraiana is better for this production; she doesn't go off in her looks the minute she's finished blooming. Neither does Dorothy Perkins."

"Nothing is lovelier in a garden than we are," plead the Tea-Roses.

"Too delicate," answers the gardener sadly. "If I were far enough south, I'd have every one of you; but I can't have straw jackets and burlap mufflers in the yard all winter. Besides, who's to spray you and all that sort of thing? You won't do."

"What's the matter with us?" ask the Pansies.

"Nothing, my dears, except that you have to be picked every day; and if I'm away all summer, who's to do it?"

"Everybody admires us and everybody plants us!" claim the Paniculata Hydrangeas.

"I don't," returns the gardener imperturbably. "You're too big, you take up too much room, and you never know when to drop your flowers. Go sit on a suburban lawn, if you wish admiration."

"And I," said the Halliana Honeysuckle—"I'm the most capable of vines—any position, any capacity, and I have a wonderful digestion."

"I retain you only as 'understudy,'" promises the gardener. "English Ivy and Euonymus are both better for the part; if the work's too hard for either of them, I'll put you in. But you know you can't hold on to your leaves all winter."

When finally given out, the parts are something like this:

Wall or Fence (covering):
English ivy.
Euonymus radicans vegeta.
Fence (for blooming):
Jasminum nudiflorum.
Corchorus.
Viburnum plicatum.
Shrubs:
Andromeda floribunda.
Daphne cneorum.
Iberis teneoriana.
Berberis dulcis.
Magnolia stellata.
Azalea mollis.
Caryopteris mastacantha.
Dwarf rhododendrons.
Perennials:
Hardy chrysanthemums.
Foxgloves.
English daisies.
Columbine.
Anemone Japonica.
Ferns.
Evergreens:
Box.
Retinospora.
Bulbs:
Scilla, snowdrop, Chionodoxa, snowflake.
Narcissus poeticus.
Darwin and May-flowering tulips.
Iris pallida and *L. Dalmatica.*
Florentine, English, Spanish irises.
Madonna lilies.
Daffodils.
In Pots:
Dwarf fruit-trees.
Hydrangea hortensis.
Box or bay.

In making up his stock company, it will be noticed that the city gardener lays stress on what the horticulturists call "habit," that excellence of form and character which is to a plant what good manners are in the social equipment of a person. Some of the plants most brilliant in their time of flowering are not good to look upon in the "off season," and there is no way of making them retire from the stage. The narrowly limited space of the town garden demands a certain finish, a correctness of demeanor; a loose, careless growth wholly charming on a country roadside is here out of place.

For this reason, many of the race of "broad-leaved evergreens," though generally but little planted, are peculiarly welcome. There is *Andromeda floribunda*, which keeps its laurel-like foliage in a summer luxuriance throughout the

winter, and in November puts out buds like liiy-of-the-valley. There are a fragrant little Daphne—*Daphne cneorum*, which shows stiffly upright rose-colored flowers in June and again in September; an evergreen candytuft; an evergreen barberry, with thick, shining, holly-green foliage and yellow flowers, which open in spring at the earliest possible moment; and mahonia, which turns crimson in October and holds its color throughout the winter.

Deciduous shrubs one plants sparingly—only those the branches of which are interesting in character when the leaves have gone—such as the *Magnolia stellata*, which looks very well, with pale-gray stems, and as many-branched as a hawthorn-bush. As early as January, furry buds, like overgrown pussy-willows, appear.

For the care of the city gardener is to make the old year forget itself, to prolong the autumn into the winter, and coax the spring into the little garden at the earliest possible moment. Therefore the city yard should be rich in bulbs, its little grass-plot thickly starred with crocus in purple and gold; there should be snowdrops wherever a warm corner can be found—sometimes they are adventurous enough to push up their hard, silver-tipped little spears in January—and all the exquisite race of earliest comers should have a place: snowflake and Chionodoxa, the color of April bluets; soft, dull-blue spikes of the grape-hyacinth; Scilla, the tiny bells of which are as deep in color as the fringed gentian; while for garden company they have the fragile and ethereal loveliness of the *Magnolia stellata* and the pale-gold bells of the naked-flowering jasmine. City-dwellers are usually utterly bereft of the exquisitely delicate bloom of very early spring, which is the rarest thing in nature. Following these lovely harbingers, come in rapid succession irises, the palest and most delicate—

pallida, Dalmatica, pumila, the English and Spanish and Florentines; lily-of-the-valley wherever there is a shady corner. Jonquils, daffodils, and poets' narcissus are followed by May-flowering and Darwin tulips, to which the snowball on the walls acts as an accompaniment.

If the gardener meditates a summer in town, then he plans for summer comfort. If he has an arbor at the foot of his yard, then he adds an awning which cuts off the view of the neighboring houses and gives him only the little garden for his eyes to rest upon, or he screens it and makes of the place an outdoor living-room; while for the planting, when the crocuses are abloom, he sows Shirley poppies and corn-flowers wherever there is space, and sometimes where there is not. It is easier to pull out superfluous plants than to transplant infant poppies. When the poppies are past, he pulls them up and tucks in dahlias or gladiolus bulbs. He has mignonettes for fragrance, and lemon verbena, and arranges for posies all summer long. But if the gardener's dwelling in town be only a matter of from September to June, then his planting is different. He sets out chrysanthemums and Japanese anemones in the spring, which in the autumn will give color in plenty. He tucks in dahlia bulbs and sows marigold and cosmos and corn-flowers for autumn blooming. When the garden is "reefed" for the winter, these are cut down, annuals are pulled up, and hardy evergreens in tubs or pots—*Retinospora* if one can afford it, or common junipers if one cannot—take the place of the bay-tree or *Hydrangea hortensis*. With ivy or Euonymus the walls are as green as in summer. Andromedas are serenely indifferent to the thermometer; here and there a brightly colored Japanese evergreen gives a touch of gayety, and the little garden has not only a comfortable but a really cheerful aspect, ready to welcome the first-comer in spring and make it feel at home.

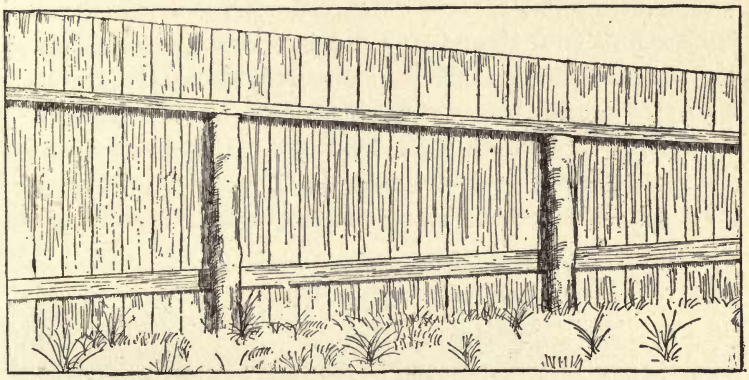
It is ingenuity that the city garden demands rather than large expenditure, careful planning rather than hard work, and the happiness it yields is well worth the trouble.

In the country the garden is a pleasure, yet it is only one of many "green delights." Without it are hills and brooks and running streams to be had for the seeking; but in the city the little garden stands for all of the country a man has, and therefore the more dearly necessary.

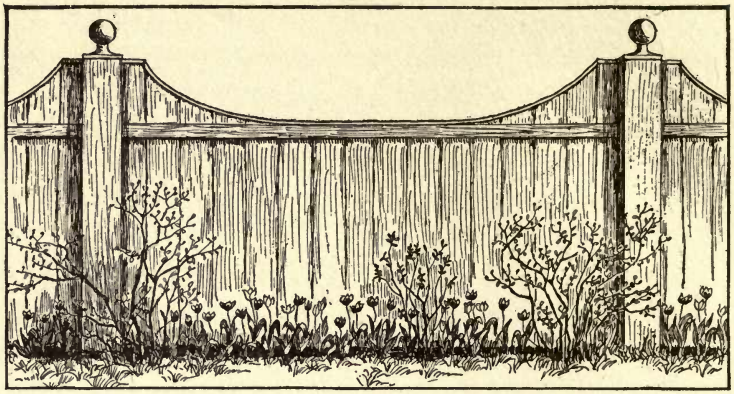
V

THE BACK-YARD FENCE

Don't let the back-yard fence spoil the effect of your pretty garden. People have come to think it a necessary evil, but it isn't; it can be reformed. There are dozens of ways of making it over and here are some of the best and most inexpensive; they cost brains and "gumption" rather than money, and repay abundantly for the trouble and slight expense.

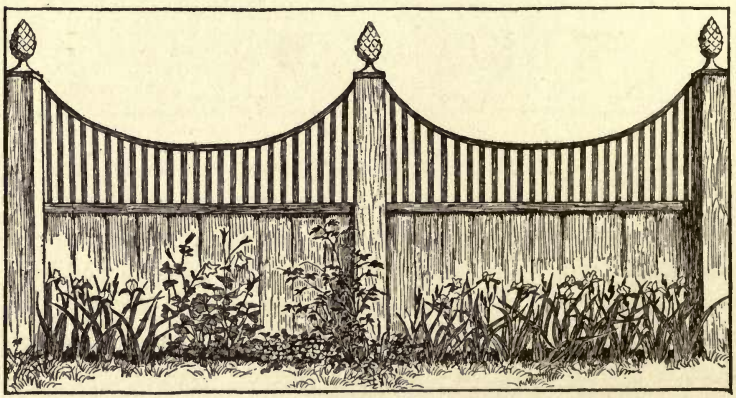


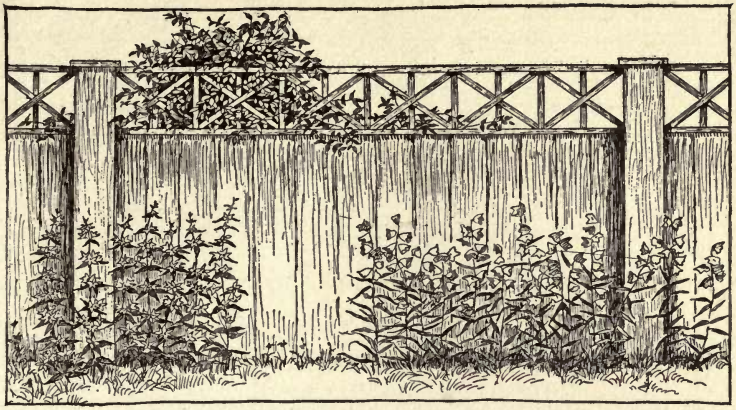
The first "exhibit" is the common back-yard fence, about as unpromising in appearance as can be imagined, yet typical of those fences which worry hundreds of amateur gardeners in America. Your fence may not be just like this one, but perhaps the solution of your problem may be had through the adaptation of the suggestions given in the subsequent illustrations.



The picture above shows the simplest variation of an old fence. The boxed-in posts are finished by a square board, with a ball placed on top of each for decoration. The upper fence-line is curved to meet the upper stringer. A narrow moulding on top serves as a finish. The important point in copying this style is to get a graceful curve in the line at the top of the fence.

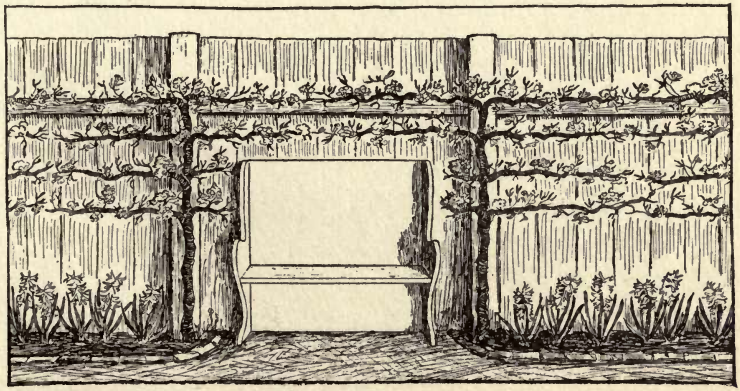
Colonial in design is the fence below. It is especially good if a rather low fence is desired. It is also a good alteration for a fence of which the boards run lengthwise. Tall, boxed-in

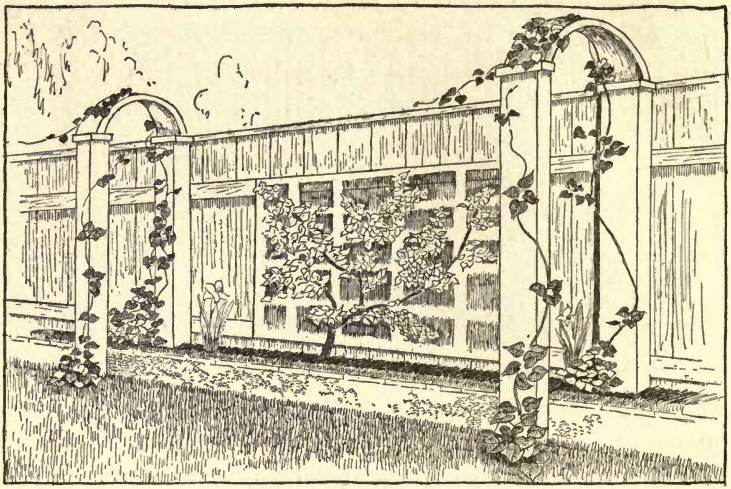


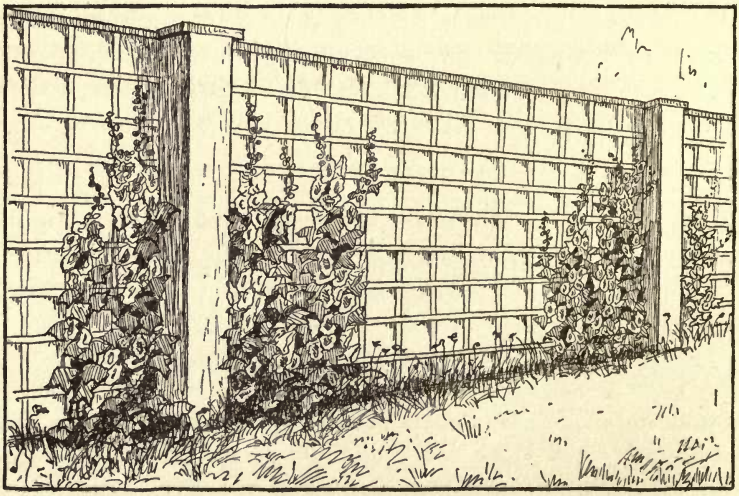


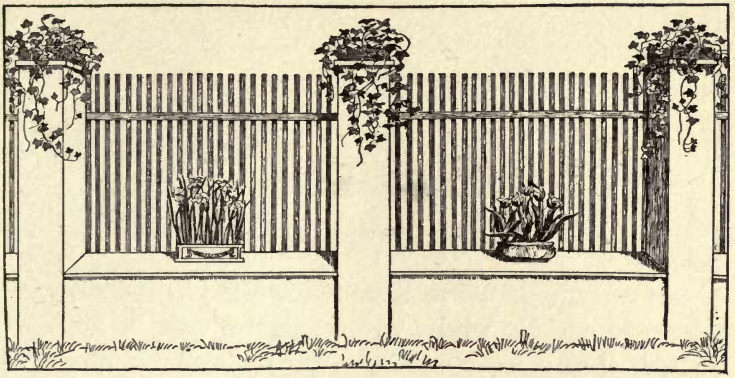
posts, with ornamental tops and narrow palings, make the height. In this and in the fence shown at the top of page 46 good proportion is very necessary.

A most decorative fence is shown above. The boxed-in posts are eight inches square, with a square board on top. The boards are cut down to the upper stringer, and an open lattice is substituted. The posts may end at the upper stringer and the fence be completed by a two-foot-wide diagonal lattice. This is a type of fence very common in old gardens.









To make the *espalier* shown at foot of page 47, plant dwarf pear-trees, one at each post of the fence. The branches are trained along wire stretched between the posts. There are many ways of training branches for fence decoration—and it's a fascinating work.

In the fence at the top of opposite page the blankness is relieved by connecting two fence-posts with a trellis, on which a pretty hardy shrub can then be trained. The arches are made by converting the clothes-posts into square posts, boxing the corresponding fence-posts, and adding the arch.

For the lower fence make a lattice of one-inch-wide strips set far enough apart so that the squares are ten inches. Box in the posts with eight-inch-wide boards, and place on top of each a ten-inch-square board to serve as a finish. The lattice and posts are painted green. This is a very satisfying and very easy alteration.

Some of us possess yards in which plants will not grow. For such the fence shown above is a happy solution of the garden problem. Gay boxes of flowers are placed between the posts and ivy or other vines in the boxes on top. The tubs and pots of flowers can be replaced as often as necessary.

VI

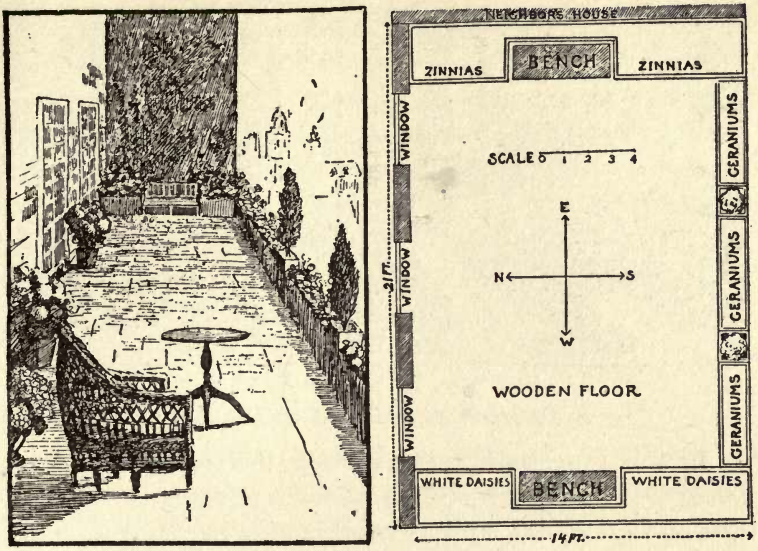
GARDEN-MAKING

A Garden on a Roof

Garden-making, where there is room for it, is interesting; but garden-making where, at first glance, there is not room for it, is even more interesting. The little garden here illustrated is on a 14 x 21 tar-and-gravel roof of the rear extension of a city house. Flower-boxes eighteen inches high and one foot wide make the balustrade at the edge of the roof, which is divided at equal distances by two higher boxes, a foot square at the top; in these are planted small evergreens. At each end of the "garden," against the side walls of the neighboring houses, are flower-beds, the soil confined by boards eighteen inches wide. These beds are filled with good loam, a layer of finely broken stone being placed in the bottom for drainage. The planting may be as one chooses; here it is simply eighteen geraniums bordered by a row of dwarf alyssums for the balustrade, with white daisies and zinnias in the side boxes and ampelopsis to climb the walls. The cost varies: the balustrade and boxes may be the result of well-paid carpentry or of home talent and found "lumber." If you have to buy the boxes the cost would be:

Boxes	$2.00	18 Geraniums	$1.80
Loam	2.00	2 Junipers	.70
12 Daisies	1.00	2 packets Alyssum	.10
2 Ampelopsis	.30		
			$7.90

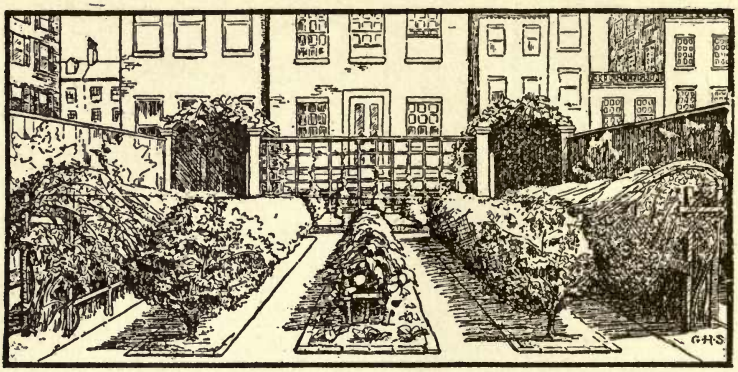
This garden needs plenty of water.



On the roof of a city house

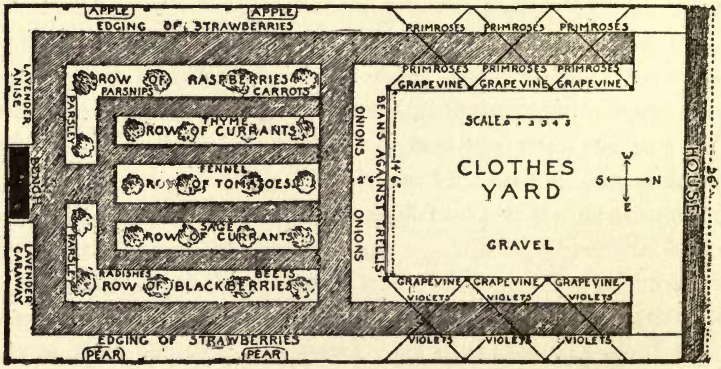
Strips of matting laid down will save a woman's skirts from tar if one does not care to go to the expense of extra gravel; tiles could also be used for flooring, and a brick floor would be very delightful.

An awning adds much to the comfort. Instead of this a trellis or a pergola may be made overhead, and some long-distance climber planted in the garden below—such as wistaria—if one has time and patience. If one hasn't, there is the Japanese Kudzu-vine (*Pueraria Thunbergiana*), which is a cousin of the beanstalk of Jack the Giant-Killer and a near relation of Jonah's gourd. It can do forty feet in a season. For the support of the overhead trellis two posts will be necessary, set where the little junipers stand. From the cross-beams on right have Venetian screens. These will give complete seclusion and make a porch that could be used for sleeping.



A Fruit-Garden on a Small Lot

In this little garden, 50 x 25 feet, the clothes-posts lend themselves to beauty and an added usefulness by forming part of a grape-vine trellis, somewhat after the fashion shown in more detail on page 48; on each side two additional posts are added, while the side fences form the other supports of the trellises. Under the grape-vines grow primroses and violets. A slender, wide-meshed lattice, painted green, separates the



Fruit-garden on a small lot

drying-yard from the little garden beyond; on this climb pole-beans. Against the side fences, beyond the grape-vines—the only possible place for them—are trained pear and apple trees. Strawberries fill the border-beds, and in the long beds, divided one from another by narrow paths of earth, is found room for five each of blackberries and raspberries set four feet apart, and for six currant-bushes. In the central bed are tomatoes. Needless to say, the soil for this garden is fertilized heavily.

During the first year, while the fruits are small, the beds are edged with a single row of low-growing vegetables—radishes, carrots, beets, parsley, and the like. Here is the cost:

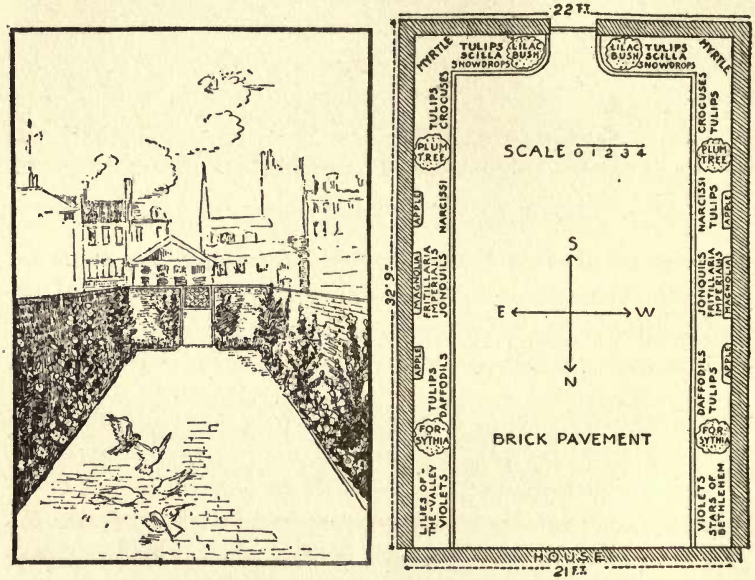
Trellises and lattice about	$10.00	4 Blackberries	$ .25
2 Pears	1.50	6 Currants	1.50
2 Apples	.70	Vegetable Seeds	.50
6 dozen Strawberries	2.25	6 Grapes	1.50
4 Raspberries	.25		$18.45

This sort of garden is well adapted to a small suburban lot and if irises are planted between the currant-bushes, and tulips in the strawberry-beds, the little garden will be charming in the spring, while its utility will not be in the least lessened. The side beds may be filled with early-flowering bulbs. The yellow tulips and daffodils will come out with the blossoming pears against the wall for accompaniment, and apple-trees in bloom with poets' narcissus at their feet make as pretty a spring garden as one could desire.

Growing shrubs or trees against the wall and planting thickly with bulbs is the easiest and most satisfying treatment of cramped space. Against a wall, even such large garden inhabitants as magnolias can be made to thrive. When the space is very small, especially if the yard be shady, have the central part of gravel or, if preferred, of brick.

A Garden of Limitations

This little yard is smaller even than the average back yard, being only 20 x 30 feet. The walls are of brick and the door at the foot of the yard opens into an alley. The yard is bricked except for the narrow border-bed close to the walls.

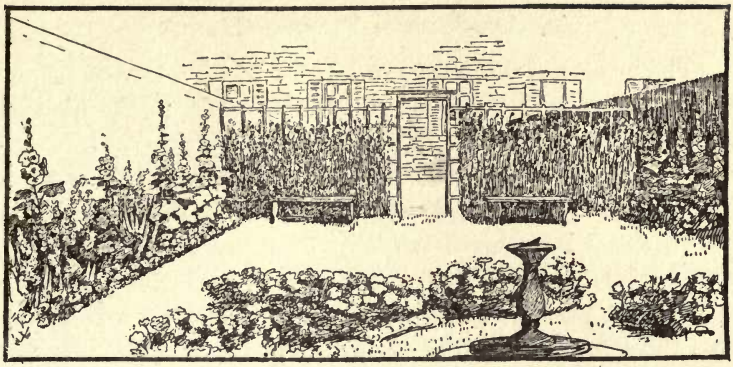


A little yard, 20 x 30 feet

A lattice is set in the upper part of the door, taking away its alley-door character. Two Soulangeana magnolias are trained against the walls.

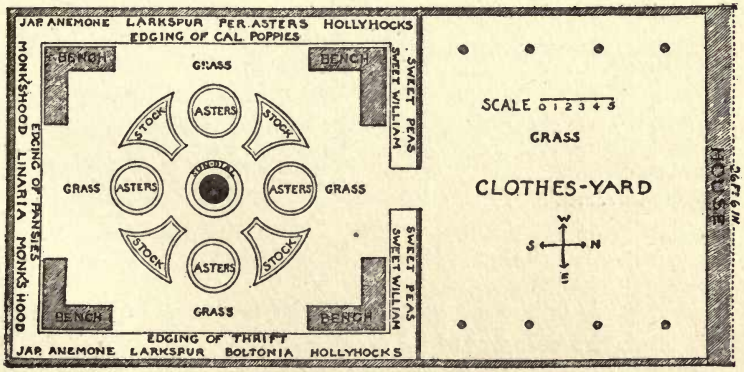
Here is the cost of planting for the spring display:

2 Magnolia conspicua	$3.00	50 Narcissi	$ .50
2 Forsythia	.50	50 Daffodils	1.50
2 Apple	.70	50 Jonquils	.50
2 Lilac	.50	100 Tulips	1.50
Shrubs	$4.70	Bulbs	$4.00



If summer blossoming were wanted, instead of a spring display, one might cover the walls with Japanese ivy for a green background, and plant such perennials as platycodon, monk's-hood, achillea, monarda, and the evening-primrose. These could be planted in April and would give flowers from June until October.

This sort of gardening is adapted to the smallest yard in which there is a bit of sunlight.



An all-summer flower-garden

An All-Summer Flower-Garden

The owners of this garden are blessed with a love of flowers and a sunny back yard, 26½ x 50 feet. Next to the house a grassed space, used for a drying-yard and service-yard, is separated from the little formal garden by a screen made of bamboo poles cut in six-foot lengths, thrust in the ground like bean-poles at intervals of one foot; these are secured by strings run horizontally, making a square-meshed lattice; on this grow sweet peas. The gateway is seven feet and a half high and three feet wide. The little garden space thus secured is grassed, except for the flower-beds which run beside the fences, and for those which make up the little formal garden. The beds are filled with stocks and China asters in dwarf varieties and are bordered with sweet alyssum.

If the circular garden seems a bit complicated, have, instead, a straight grass path down the centre of the garden, with a narrow, oblong bed on each side.

Here is the cost of planting:

PERENNIAL PLANTS		ANNUALS (SEEDS)	
24 Japanese Anemones	$3.00	Stocks	$ .10
12 Hollyhocks	.75	Asters	.10
12 Larkspur	1.00	Mignonette (½ ounce)	.25
12 Perennial Asters	1.00	Dwarf Alyssum (1 ounce)	.25
36 Pansies	2.25	Sweet Peas (1 ounce)	.10
12 Monk's-Hood	3.00	California Poppies (2 packets)	.10
12 Sweet-William	1.80		$ .90
12 Boltonia	1.80	Bamboo Screen	3.00
	$14.60		

If annuals only were used, or if the perennials were raised from seed, the cost would be much reduced.

VII

WHAT YOU CAN DO WITH A LATTICE

One of the most valuable accomplishments for the amateur gardener is skill in the making of a lattice.

Latticework, like charity, covers a multitude of sins. It is the most convenient of defenses against ugliness; the prettiest and most satisfying of supports for vines. For embellishing, for covering any slight defect, it is as useful in the garden as the arts of the toilet to the woman who needs them. Besides its utility in dozens of situations, the making of a lattice is, to the woman who can drive a nail, an exceedingly pleasant form of "garden fancywork." In largeness of result, in interest in decorativeness of effect, that other fancywork done on a porch and in a rocking-chair is not to be compared with it.

Latticework is to the garden as embroidery to a gown. It gives a certain charm, completeness, and distinction. And there is a very real satisfaction to its author in having done the work herself.

The materials for this form of garden art are simple enough and easily obtained. Any lumber-dealer will supply the strips in exactly the lengths desired. So many lengthwise strips, so many crosswise strips, may be provided, and if the measurements have been taken carefully, the trouble of sawing is quite eliminated, and the lattice goes together with a neatness and exactness that is really soul-satisfying. (If an effect of lightness is desired, the strips should not be set too close together.

A nine-inch square "mesh" is a good size for strips that are ¼ x 1 inch, and a twelve-inch "mesh" if the strips are of lumber ½ x 1½ inches.) The lattice may be diamond or square, according to one's taste. Square is a bit easier to make, the diamond, perhaps, more decorative.

The easiest form of lattice on which to try one's "'prentice hand" is the "ladder," shown on this page. This is used as a support for a climbing rose, for assisting a vine up a piazza-post, and has many decorative uses about the house.

"Ladder" trellis

Although apparently simpler of application, the usual poultry-wire is actually far more difficult for a woman to manage unaided than even an elaborate-looking lattice. To look well, the poultry-wire needs to be stretched evenly and tightly between its supporting posts. And to do this is by no means as easy as it looks.

In Colonial times the lattice was very much in use, and the Colonial gardens had a charm which ours have not.

In these older gardens the lattice was very evident. There were latticed summer-houses—such as that at Mount Vernon—often a latticed well-house, latticed arches or arbors or porches. These were simple in line, almost invariably beautiful in proportion. Usually, in the Colonial gardens these structures were painted white, with the latticework in green. With their complement of vines (for over them would be wistaria, or perhaps the little old-fashioned red roses), these arbors and summer-houses must have been charming settings for the eighteenth-century damsels. For the purposes of romance, they were far ahead of our electric-lighted porches or open

lawns, however extensively the latter may be beautified with shrubbery.

It is quite possible that the present decline of romance may be in a measure the result of our mercilessly open grounds, and the utter lack in the gardens of the "rose-grot" of the much-quoted poet, or anything akin to it. Is a settee on an open lawn, under the scant shade of a chubby young umbrella of a catalpa, at all comparable in a young man's fancy with sitting in a vine-clad arbor beside the admired one, while the gold and green light sifts through and touches her hair and the vines make charming shadows on her gown? In fact, when the young women of to-day awake to the romantic value of a garden setting for themselves, it will mark a new era in our gardening, and perhaps a new birth of romance.

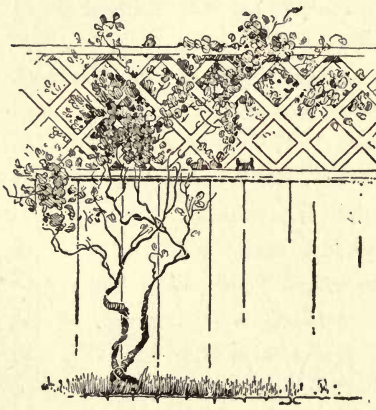
The garden uses of the lattice are many and various. In the older gardens, an arbor was often made by setting two arches across a path at a distance of eight or ten feet apart, connecting these with horizontal joists, and then covering the whole structure with a diamond lattice. Inside, against the lattice which served as a back, was on either side a long, low seat. Over this arbor, of course, grew vines—roses or honeysuckle. Such an arbor, at once shaded and airy, has proved a charming play-place to several generations of children, and it is far more in keeping with a rather simple garden than the ubiquitous pergola.

On exactly the same plan, but narrower, the two supporting arches not more than three feet apart, was the garden arch, common in Colonial gardens. This was almost invariably used for climbing roses.

The covered seat, which is an excellent bit of garden furniture, is made of a wide garden arch, two feet deep, with a low, broad seat across, while at the back, as well as at the sides, is

set a diamond lattice. Such a seat is especially adapted to a place at the end of a path or the end of a terrace. Covered with vines, it makes a very attractive corner in the garden.

That the lattice-topped fence, common enough in the gardens of a hundred years ago, is rarely seen to-day is a pity. The construction of it is simple—merely a two-foot-wide diamond lattice on top of a plain board fence—and the fence, so completed, makes a delightful background for flowers or climbing plants, and it is especially charming when, as in the earlier gardens, shrubs are trained against it.



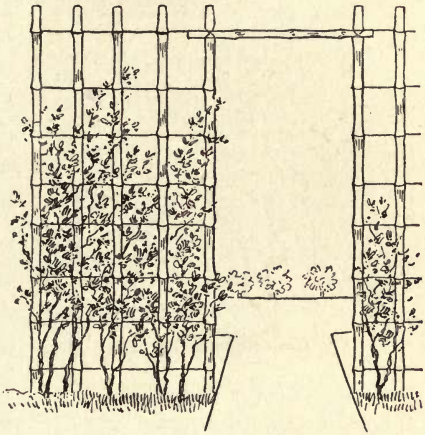
Lattice-topped fence

Another way of transforming a fence is by setting against it a square lattice (see p. 48). This, if covered with roses, will quite transform it. And if the lattice be three or four inches out from the fence, the vines, having more air, will thrive the better. For a grape-vine the trellis should stand a foot from the wall.

One of the easiest and prettiest of garden-trellises is of string and bamboo. This lattice is not heavy enough for permanent vines, but for annuals—sweet peas, nasturtiums, scarlet-runner beans, and the like—it is charming. It makes one of the most delightful of temporary divisions in the garden, and for fencing off children's gardens, for the construction of kindergarten-size playhouses, nothing can be prettier nor easier for the small gardeners to manage. The lightness

of the bamboo and string make an admirable accompaniment to the lightness and delicacy of sweet peas or morning-glories. And sweet peas are of too poetic and delicate a loveliness to be married to so prosaic a support as chicken-wire.

To make a bamboo lattice, have the stakes cut in six-foot lengths (for a fairly tall fence); set them in the ground at six-inch intervals. Then take a ball of common heavy brown twine and stretch it across the stakes, tying at each stake, the strings being just the distance apart that the stakes are set. If the stakes are straight, the strings stretched evenly, this lattice is quite Japanese in effect. Such an arrangement of bamboo and string, covered with annual vines, is one of the best ways of making a quick and temporary screen—such a one as is most desirable in a place that is merely rented for the summer.

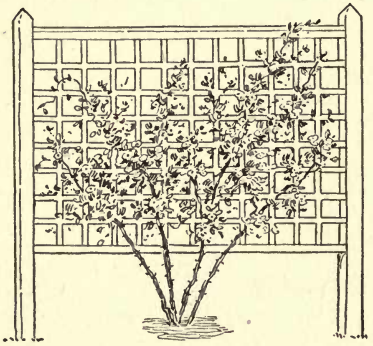


Bamboo and string lattice for annual vines

For a more permanent screen a small trellis is good. This may be of any size you choose. (That illustrated is only six feet wide.) Two posts should be set at the right distances with cross-pieces to serve as stay and foundation for the screen of rather close latticework. A climbing rose or a shrub trained against such a trellis is a very attractive substitute for some bit of unloveliness that otherwise would obtrude itself into the garden.

In making a garden, the screening, or cutting off from view some bit that would mar the charm, is quite as important as

embellishing, and no readier defense is to be had than some form of lattice. In this matter of worrying the garden, the most persistent offender is the clothes-line. The flowers come and go, but every Monday the weekly wash appears, triumphing over any effort of the garden. And yet a drying-yard is so easily managed one marvels that it is ever omitted from the plan of laying out grounds. Although other ways of screening are practical and possible, a lattice is by far the quickest and most effective. When shrubs are used, one has to wait several years before they are tall enough to be adequate to the demands of the situation; if wire-netting and vines are tried, these will only screen in the summer-time, leaving the problem in winter where it was before. But with a lattice even a slight growth of vines answers the purpose, and the lattice itself, even unblessed by vines, forms an excellent background for any planting. If a doorway be made in the lattice wall, an effect of distance and size will be given even to a small yard. The structure should harmonize in color with the house and should come up at least to the top of the lower windows.

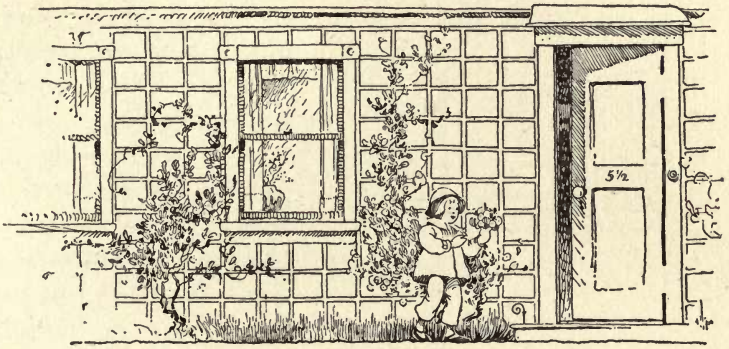


Rose-trellis to form a screen

Another place where the lattice screen is valuable is on a porch, where more seclusion is desired than one has. Here a very slender lattice, enclosing the more exposed end, gives a delightfully complete feeling of being shut off from street or neighbors, and yet neither view nor air is excluded and the vine growth may be of the slightest. If a doorway or window be made in the lattice wall, nothing of the feeling of seclusion is lost.

To the amateur gardener, this retouching and modifying of the house by a skilful use of latticework, is one of the most fascinating uses of the art. In proportion to the expense and effort, the results are so beautifully large, the improvement so definite, it is like having an unbecoming gown altered by a clever modiste.

Suppose the side wall of your rented house is blank and barren, having in it but one window and that too narrow.



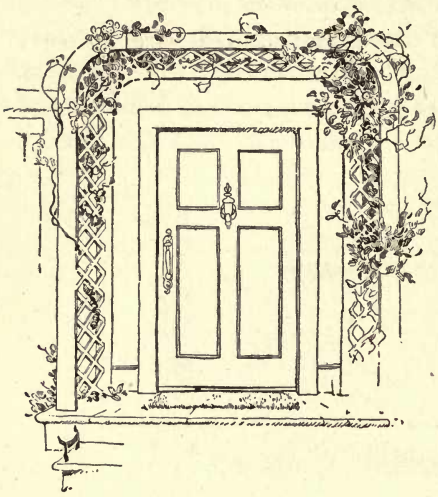
Breaking the monotony of a blank wall by latticework

In this case, if a simple "ladder" be set up on each side of the window to a height level with the top of the window-frame, a vine planted to climb the "ladder," the aspect of the window will be quite changed. And if the lattice be extended and cover the wall to the height of the windows, the blankness will be found to have completely disappeared, and the house to have gained in breadth.

If the door is uninteresting, or even ugly, give it a latticed porch, or even a latticed arch over the door wide enough to afford room for a seat or bench on each side—and you have a charming Colonial doorway.

These are a few of the uses to which the lattice may be

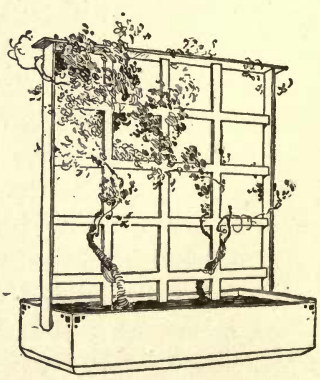
put. There are dozens of minor uses. A portable porch-screen may be constructed by taking a box shaped like a window-box (4 ft. x 1 x 1 is a good size) and putting in the centre a lattice four feet high and planting in it English ivy or some other vine. Such boxes, set side by side, serve for a temporary hedge to a walk, as a porch-screen, or for many other uses.



Lattice arch for a doorway

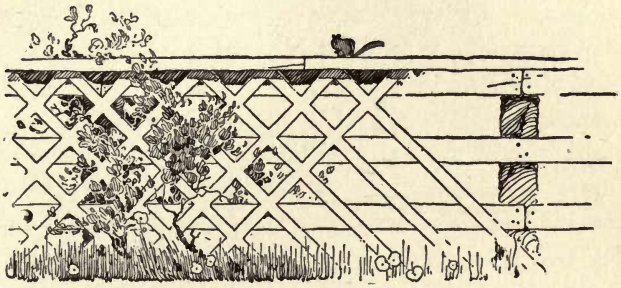
The common three-rail fence may be transformed into a very creditable residential fence (and a hen-proof one besides) by making an "appliqué," as needlewomen say, of lattice, using the rails as a foundation and then planting nasturtiums. I have seen a very charming fence of morning-glories of which the foundation was an ordinary barbed-wire fence upon which was made a lattice of common brown string.

These are a few of the varied capabilities of this useful form of garden handicraft. It is no new thing, the lattice. It is almost as old as gardening. Yet among the many devices that have come into use since a man and a woman were



Portable screen of latticework

first put into a garden to "dress it" none has quite taken its place, because none is quite able to fill it. Beside the quaint and old-fashioned charm of the latticework, its rival, poultry-wire, is commonplace, and the manufactured wire supports harsh and unsympathetic. The next time you are thinking of either—don't! Take hammer and nails and only lath, if you must, and make a lattice instead.



VIII

COMFORT IN THE GARDEN

Comfort in the garden is almost as essential as comfort in the house. To have one's garden so planted that it affords no chance for a man to sit at his ease in the shade, to smoke his pipe of contemplation if he chooses, to read, or watch the bees among the flowers, and to survey the results of his labor, is to miss one of the most legitimate joys of garden-making.

Never would Andrew Marvell have had his "green thoughts," had not his garden been blessed with the "green shade" to inspire them.

It was because of this liking for the "green shade" that in the older gardens were the pleached alleys, the lime walks, and the "carpenter work." At Middleton Place, in South Carolina, most elaborate of the great estates of two hundred years ago, the planting of the spacious gardens was so arranged that one might make a tour of the entire gardens, enjoy them to the full, and yet none of the time, unless he chose, be exposed to the sun—sometimes the walk would lie between walls of green, so close were the tall magnolias; sometimes under great live-oaks where a wide expanse of river spread just below, but at no time was there the necessity to "buy the shade by going into the sun." This boon of shade is appreciated keenly in a southern climate, and is a grace for which many a visitor to a northern garden has sighed in vain.

With our clear skies and intense sunshine, coolness and shade are eminently desirable in the gardens, but unless our

Curved seats under an apple-tree make a simple and charming centre to a Cornish garden.

ancestors were thoughtful enough to plant them for us, we Americans are not given to planting trees for ourselves, except Norway maples and Carolina poplars for street trees—and these in such positions that the telephone companies are certain to chop off their heads. Perhaps, we lack the necessary faith and patience to plant for posterity. Besides, posterity may live abroad or choose some other dwelling-place—so what's the use? Yet there are beautiful trees—beech and Oriental plane, linden and horse-chestnut, pin-oaks and white oaks, and the friendly sugar-maples.

If the contractors, in their march through the Georgia of newly captured territory, could be persuaded to leave only the trees they might leave with no possible hurt to their pockets, many a suburban garden would be infinitely the richer for a stately oak or beech. But the majority of folk in small suburban places have not sufficient courage or vision to plant for more than twenty-five years ahead—possibly by that time the suburbanite hopes to have his country estate. Doubtless, the most satisfying trees for a suburban gardener's planting are fruit-trees. These, even from their infancy, are charming, and though he may never have the pleasure of seeing them through maturity, he has the pleasure of watching for flower and fruit every year. One of the prettiest of garden boundaries is a dry stone wall with apple-trees looking over it: and if a walk be next the wall, with a three-foot flower space between, it will be just shaded enough to be pleasant, and the flowers will have a charming background.

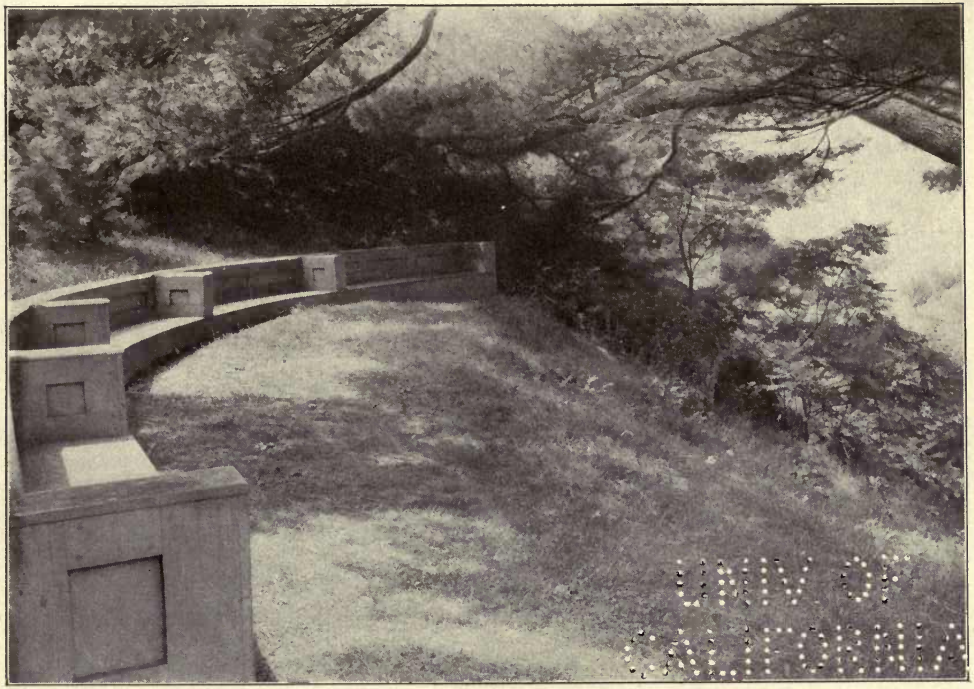
Grape-arbor and orchard were an essential part of the older gardens—and a very lovely part. Our grandmothers' contentment with the lack of verandas with which every sort of a modern country house is abundantly supplied, is explained by the arbors and summer-houses which their gardens were

sure to possess—these and the near-at-hand orchard. Surely, it would be a joy and a rest to the farmer's wife if the way to the kitchen-garden were through a grape-arbor. For a single summer, a most useful "pergola" covering the same route could be made of bean-poles and their vines. And the housewife would have a shaded walk which would tempt her or her maid to go to the garden itself for fresh vegetables.

If a woman has not leisure to walk among the flowers—and many a farmer's wife has not—the obvious thing is to border with flowers her necessary walks. In a charming little garden in Charleston, S. C., garden peas grow side by side with sweet peas, and who must pick the one for his dinner is also tempted to feed his soul by picking the other. And the way to both is through an arbor overgrown with roses.

If, instead of taxing his brain to find flowers that will grow under a tree, the gardener should abandon the problem and plant instead a comfortable garden-bench, many a visitor would be glad of the chance to sit down and call him blessed.

In construction, garden-benches should be simple in line, heavily and substantially built, that they have not only an appearance of stability, but do not need to be rushed to shelter in case of rain. They should be able to stand wind and weather. Also they are much better home-made. A bench or a seat of rough construction, if suited to the place, is almost invariably far more pleasing than a manufactured one, which never can win the look of having been "born and growed" in the place. In a Connecticut garden, where a pool and beyond it an old apple-tree terminate the central garden-path, there two curved benches, forming a semicircle, with the apple-tree at their centre, make a delightful place to sit and survey the garden and, although comparatively new, give the feeling of having always been there.



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Interesting type of built-in seat which fits into the bank and the landscape.

One of the most delightful instances of fitting a garden-bench to a tree is at Mr. Stephen Parrish's place at Cornish, N. H. Here a curving grass path leads to a giant pine-tree, from which one has a wonderful view of valley and river and mountains and far-stretching blue hills. Across the path, just the right distance from the tree, a long, curved seat is fitted into the bank. It is stained a dull green and brown until it looks as if it were almost a part of the moss and pine-needles.

The built-in seat in the garden has somewhat the same charm as a window-seat in a house. Some of the most interesting examples of built-in seats are at Cornish. The pergola, also, at Mr. Stephen Parrish's which forms the northern boundary of his garden, uniting house and garden, has a long, low seat against one side and is a most delightful lounging-place. From it one looks across a radiant little garden with a pool in the centre, which reflects the colors and yet gives a sense of coolness on any day.

The stone seats built into the four-foot-high dry stone wall of Miss Rose Nichol's garden are very attractive, shaded as they are by dwarf fruit-trees. Admirable in their talent for fitting the place are the four curved seats which surround a shaded pool and make it the centre of the garden.

There is nothing occult in the placing of garden-benches. Very often, it is true, marble benches or their similitude in concrete or stone are placed in purely decorative positions, where they "balance" and give a certain finish to the garden. But these are analogous to the chairs in the 1830 parlor, placed in strategic positions, on which no one was expected to sit. As Bacon says, they are among "the things that make for state and magnificence, but add nothing to the true pleasure of a garden."

Where should a garden-seat be? Precisely where one

wants it. Usually this will be in the shade, because sitting in the shade is pleasanter than in the sun; and it should, if possible, command a charming prospect, because it is far more agreeable, when one is sitting resting, to have something goodly to look on than not. For these reasons at the end of a path is a good place or where there is an exceptionally fine view.

No great expense, either of time or money or labor, is required to make a garden comfortable—merely that in making it the gardener have an eye to his own comfort, as well as that of the plants. And when our gardens are more comfortable, they will be lived in more and loved the better.

IX

THE USE AND ABUSE OF THE PERGOLA

The pergola in America is both sinned against and sinning. It appears in the same case with Longfellow's heroine who had the little curl—

> "When she was good, she was very, very good,
> And when she was bad,—she was horrid!"

With the idea of the pergola—that of a shaded, vine-covered arbor through which one may walk—no one has any quarrel; it is the expression of the idea that is at times appalling.

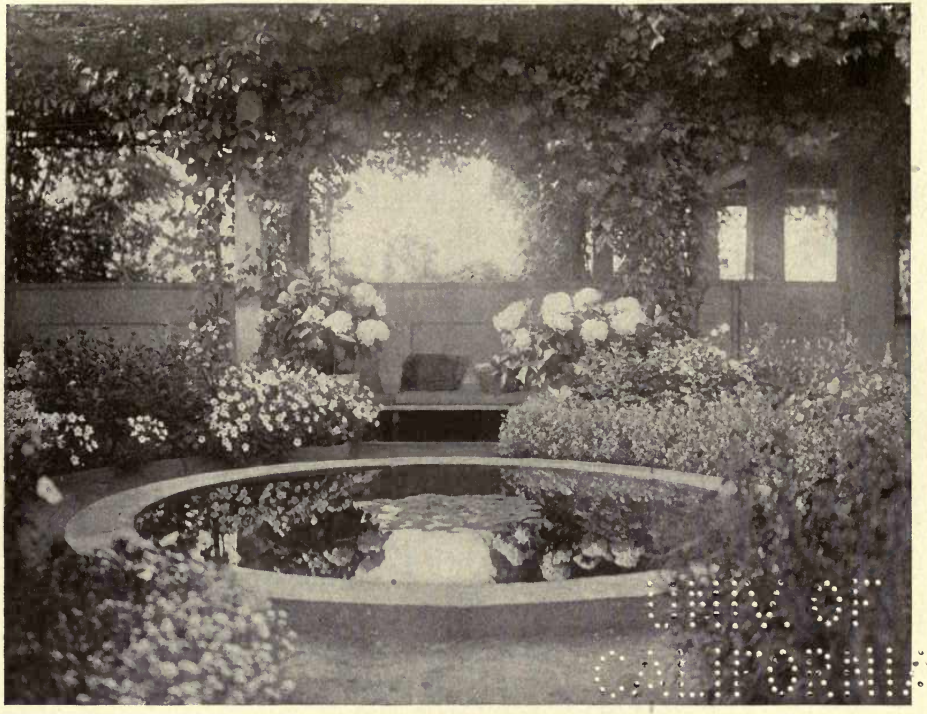
The pergola is, as I have said, more sinned against, and the chiefest of its misfortunes is due to the lack of what in another sphere would be called social tact on the part of its author; wherefore we constantly see pergolas, excellent in themselves, brought into close association with buildings of a type with which they should not have had even a bowing acquaintance. A pergola almost classic in its severity of design must suffer sorely when set down beside a careless, rambling house of the bungalow order and a garden which is quite as informal and even more coquettish than the house. Precisely as out of place and uncomfortable is a rustic pergola, obtruded into the decorous shadow of an old Colonial house. The architect in either case may be serenely unconscious of having done anything amiss; yet the primary impulse which deters a man from completing with an evening coat a costume of tennis flannels or golf trousers, should have restrained

him. These things ought not so to be; yet unfortunately they are; and they are of such frequent occurrence that a pergola that is in perfect harmony with the house is rarer than one that isn't. Yet it should not need much wisdom to see that, if there is any architecture in the garden, it ought to echo the architecture of the house.

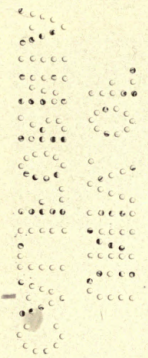
Another sin against the pergola lies in placing the unfortunate structure where it is absolutely futile and has no reason whatever for its existence. William Morris's dictum holds good in garden craft: there should be nothing beautiful which is not useful. Now a pergola naturally is doubly useful: it affords a support for vines, and it provides a pleasant and shaded walk; it answers the purpose of the "pleached alley" of the older gardens for the shade of which one has to wait a number of years until its trees are grown. But the first duty of a walk is to lead somewhere; also there is no possible reason for the existence of a supporting structure unless there is something for it to support. Yet for all this it is not uncommon to see an unhappy pergola marooned in the centre of a wide lawn with not even a vine wherewith to bless itself.

Aside from the misplacement—though that is the worst sin—the pergola itself is often faulty in construction. This is a light error to that of being in a place where it has no right to be at all. Proportion is, in its construction, of first importance; very often the pergola is altogether too narrow for its height. Eight feet wide, eight feet high, and eight feet between the posts is a satisfactory distance in every way.

Another cause of suffering to those who have to look at it is the lack of overhead vines. It's well enough to have crimson ramblers grow up the sides—if you like them, though there are better roses—but, unless there are enough vines



Long, low seat forming one side of pergola affords a delightful view of the garden.



overhead to make a really effective shade, the structure with its heavy unoccupied beams will suggest a section of an elevated-railroad-trestle, which in a garden is an unfortunate suggestion.

Unless the garden is very elaborate and very definitely separated from the house—though no good garden should be—the pergola ought to be constructed in relation to the house; it need not be closely related, but some degree of relation it should have. Its architecture should, as I have said, echo the architecture of the house, or at least be in keeping with it. If one's house is Colonial, then it is wisest to forego the pergola and content oneself instead with the long, wide, low arbor which belongs to that period.

When seen at its best and in its most comfortable position, the pergola extends from the house along the lines of the house, and makes a shaded place from which one may look out upon the garden; or else it forms one side of the garden, perhaps arching the boundary walk; usually it "leads somewhere"—to a pool with seats about it; a statue or sundial is at the end; it opens on a beautiful vista or leads into a charming path. It is well to supply the visitor with a reason, however slight, for taking the walk besides the undoubted value of exercise. I remember a charming arbor—I dare say it would have been styled a "pergola" in the North—in a little garden in Columbia, S. C.; this led wisely, conveniently, and pleasantly from the rear of the house to the kitchen-garden.

In this country some of the most satisfactory pergolas have been designed by Mr. Charles R. Platt, who is peculiarly gifted in the matter of relating the house to the garden.

Pergolas may be useful as well as ornamental. Another useful one, simple and rough in construction, designed by George F. Pentecost, Jr., for the tradesmen's entrance to a country

house—a hundred-yard-long driveway. On both sides of this road were originally a long line of grape-vine trellises. The architect took the cue, left the vines undisturbed, but put taller posts and overhead crosspieces. The vines quickly covered them, not only making a completely shaded road, but screening chicken houses and yards from the lawn on the other side of the road. It was this same landscape-architect, who made another cleverly useful pergola—this one on the estate of John Wanamaker, Jr. Besides its legitimate use, this pergola serves as a back-stop to a tennis-court; fine wire-netting is on the outside to stop a chance ball, but a heavy lattice is also present so that the netting is unnoticed; there are seats whereon interested folk may sit and watch the game. The wood of the structure is varnished with spar varnish and the choice of vines is peculiarly good—trumpet-creeper and bittersweet, if I remember correctly—both rich in the orange tones that harmonize well with the color of the spar varnish.

The character of the vines wherewith a pergola is adorned does not receive half the attention it ought to have. I do not believe it is the place for roses; their flowering season is brief; their foliage rarely dowered with enduring charm; the winter protection, often necessary, is unsightly. Then, too, covering or embellishing the sides of a pergola is, as I have said, comparatively unimportant; it is the overhead vine that matters—the varying shadows cast by leaf and stem on the brick walk below are very charming and a lovely thing to watch—yet rarely is this considered. In this matter of shadows and overhead shade, the wild grapes are peculiarly lovely; their heavy foliage gives dense shade in the summer when one craves it; the exquisite character of leaf and stem in earliest spring, the charm in October of the ripening grape-clusters—all of this makes it a vine much to be desired. Another vine,

rarely beautiful overhead, is the wistaria; it is lovely in May, when in full bloom, lovely when the petals are falling; it has a gracefulness and a poetry that the Crimson Rambler never thought of. There are other pergola vines—Virginia creeper, bittersweet, clematis, trumpet-vine—but none for overhead effect compare with these two, the wistaria and the wild grapes; that is, for northern gardens. In the South there is a wider range; here roses as pergola vines are perfectly possible, even admirable. Especially is it true that if the pergola have any beauty of structure and grace of line, this ought not to be obliterated by a rank growth of vines as if it were a back-yard fence, for which reason again the overhead vines are desirable.

Undoubtedly the present enthusiasm for a so-called Italian garden is responsible for the frequency with which this long-suffering pergola is haled into gardens with which it has nothing in common. There is a prevalent impression that if one has a pergola, one has an Italian garden. But a pergola does not make an Italian garden any more than the single foreign garment that a heathen proudly assumes, arrays him completely in the garb of civilization—though in either case the one may be a part of the whole. But if, instead of haling into our garden by the head and hair, as it were, pergolas and marble exedræ, we should bring from the gardens of Italy a sense of their beauty of proportion, their balance and symmetry, a touch of the skill and exquisite perfectness with which the Italian garden is fitted to the landscape and the character of the country—it would be a blessed thing for American gardening. For these are things that, like the Kingdom of Heaven, should be sought first, and then pergolas like the other good things may safely be added unto them.

X

WHY GARDENS GO WRONG

Bringing up plants is very much like bringing up children. There are folk who understand the matter instinctively—but not many. To embark suddenly on a large garden enterprise—to begin with a wide variety of trees and shrubs and plants, expecting them all to prosper—is like adopting an entire orphan asylum and then wondering why each individual child doesn't do one credit.

Therefore, for one's peace of mind and for one's credit in the community, it is better, when making a first year's garden, to bid valor wait on discretion and choose the strongest and most easily grown plants, turning resolutely from extraordinary novelties as from so many temptations of the devil.

There are, in gardening, obvious evils for which there are definite remedies, such as when insects descend or when disease thins the ranks; but when, with no apparent cause, one plant or another simply does not flourish, here are some of the possible causes:

When Shrubs or Trees Do Not Succeed

Wrong Planting.—The hole may have been neither wide enough nor deep enough, in which case the roots were cramped, perhaps broken. Not only should the hole admit the roots comfortably, but there should be room enough for a shovelful of manure in the bottom to give the plant-roots some incentive to go down. In planting, look for the earth-mark on the stem and plant it precisely as deep—no deeper.

Starvation.—More plants suffer from this than is supposed, for to many people soil is an unknown and unknowable element—the thing that one covers roots with, and anything will answer. It is on new places and where grading has been done that starvation for garden or lawn is especially immanent. Contractors have a distressing habit of burying the good top-soil several feet deep, while the hard-pan is put on top; which labor-saving process makes a good lawn or garden impossible for several years. Another situation in which plants are likely to starve is when planted near a pergola or a piazza. Vines here are rarely given enough to eat. If a wistaria, for instance, is to flourish, remember the distance it is to travel and provision its new home accordingly. It should have a hole dug four feet deep, a yard square, and the space filled in with good soil well mixed with manure.

Too Rich a Diet.—Perhaps the shrubs have had the other extreme; they have had too much manure. When they "run to leaves," as gardeners say, and do not flower, they may have been overeating. Any manure used must be well rotted and not fresh, and well mixed with soil. The roots must not come into direct contact with it or they will suffer.

Planted Too Late.—If trees or shrubs have been planted when coming into leaf, they have a hard time of it; they are like people who begin to work directly after an operation, omitting the period of rest and recovery.

Shrubs planted when leafing out should be cut "hard back" to enforce rest after the shock of transplanting, so that the roots will have less to feed while making their connections with supplies. If this was not done, and the newly planted shrub left with all its leaf-buds to care for, the poor thing was subjected to a severe strain, and may well have shown the effects of it.

Overcrowding.—It is customary to plant shrubs and young trees closely for immediate effect, with the praiseworthy intention of thinning out later, but the thinning is rarely done, and there is no way for the shrubs to secure the space they need but the jungle method of killing one another until only the strongest survive. If, therefore, the plants are too close for comfort, dig them up in the early spring, while still dormant, and set them at a peaceable distance from one another.

If Your Flowers Don't Grow

They May Be Too Near Trees.—Gardeners have a quite unnecessary panic if the bole of a tree is not hidden by shrubbery, and if nothing whatever is planted beneath, and yet half of a tree's beauty is in the outline of stem and branches balanced by the quiet stretch of greensward beneath. If grass will not grow, the trees when left to themselves will usually provide a very charming carpet of brown dead leaves and little hardy ferns; but to attempt flower-beds underneath them is a mistake—both trees and plants will be unhappy, and the trees will do their best to prevent you. Elms will eat up everything within reach and send their roots fifty feet if necessary, and to plant such "heavy feeders" as roses or dahlias near them is but to plant disappointment for oneself. But you can plant lilies-of-the-valley, and tuck into the ground any quantity of early flowering bulbs which will come up year after year in the grass. This is more satisfactory to all concerned.

Plants in the Wrong Place.—Be sure to find out the situation a plant likes before sowing the seed or setting out the root. It is useless to expect sun-loving plants to bloom in the shade; they won't do it; but there are many plants that not only like but require partial shade, such as tuberous

begonias, many varieties of lilies, petunias, Coreopsis, California poppies. And mignonette has no objection to it. If there are shady places which must be planted, you can always put in ferns or lilies-of-the-valley, Monarda, German iris, pansies, or forget-me-nots.

Wrong Soil.—Any one knows that some flowers grow wild in moist, shady places, others in dry, barren spots; therefore one cannot expect that within a garden all will like the same diet. The wise gardener will do one of two things; either he will plant such things as will like his soil, or else he will fit his soil to the plants he wants in his garden. With a stiff, clayey soil and plenty of manure, one can have roses, dahlias, zinnias, in abundance; with a light, sandy soil one can have poppies, nasturtiums, and tea-roses in luxuriance, but not sweet peas. Therefore, before planting, find out what manner of soil your plants prefer, and whether you can meet their preferences.

Wrong Watering.—All plants like to have their leaves sprinkled, but to sprinkle the soil about them as a means of giving the roots a drink does very little good, and a thorough soaking once a week is infinitely better than a slight daily wetting. When flowers or vines are planted near a house they are in especial danger of suffering from lack of water and should have much more than in other situations. Among the plants which are heavy drinkers are dahlias, heliotrope, forget-me-nots, Japanese iris. Nasturtiums and poppies both will starve and go thirsty contentedly, only blooming the better.

Overcrowding.—This is a frequent cause of ill health. Probably more plants fail to realize the gardener's expectations from lack of thinning in early life than from any other one cause. When sweet peas turn yellow and look blighted, overcrowding in infancy is almost always the reason. It requires quite a little heroism on the part of the gardener to properly

thin plants, a Brutus-like firmness to pull up the infant annuals that their fellows may have enough to eat.

Lack of Picking.—It is the seeding, not the flowering, that exhausts a plant's vitality, and many flowers—sweet peas, corn-flowers, pansies—will bloom continuously if kept picked and not allowed to go to seed.

These are a few of the rocks wheron one's gardening adventure is most like to meet shipwreck, and to note dangers beforehand is one of the surest ways of avoiding labor and sorrow.

XI

GARDEN BOUNDARIES

In the matter of garden boundaries, there are two widely differing view-points. The folk who hold that a garden should be a thing apart—

"All grace summ'd up and closed in little,"

a charming picture, but a framed one, house and garden together making one architectural whole—these wish a definite, plainly indicated boundary for the enclosed garden. Of these the late John Sedding is one of the best exponents.

The other view-point is that the garden should simulate a natural or rather accidental planting, that the "made" garden should melt imperceptibly into the surrounding country; so that, while the natural scenery about the house has been embellished, the fact that it has been designedly embellished should not be evident. Very much as a woman may resort to various devices to enhance her natural endowment of beauty, yet it is not desirable that one may detect where the natural leaves off and the artificial begins.

For the folk who hold this view of gardening the only boundaries possible are irregular plantations of low-growing trees or shrubs or tall perennials. Or else, if there be a more definite boundary—a fence or wall, or the like—it is concealed by planting.

This type of boundary, although it seems easy—as drawing seems easy, as "acting naturally" on the stage seems easy—is really exceeding difficult. Unless very skilfully done,

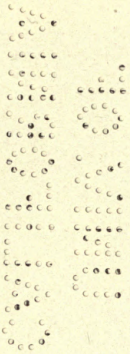
"naturalistic" planting is as sure to look artificial as rouge on a woman's face. I remember a place on which the owner had spent millions, where an irregular "natural" boundary was interpreted by a succession of huge scallops, purple Prunus Pissardii at the points, golden elder in the centre, where a "loose undergrowth of rhododendrons" was represented by stuffing the space under lovely roadside trees with highly colored hybrid rhododendrons of wildly dissimilar colors, as tightly packed as bunched asparagus. To imitate nature isn't the simplest thing in any art. In gardening as elsewhere it requires rare skill.

Sometimes these differing view-points are united, and we have the grounds harmonized with the landscape by skilful planting, while next the house is the garden proper, definitely enclosed (with hedge or wall or whatever one likes best), while from the outside the fact that it is enclosed may be disguised by planting.

The chief value of the "naturalistic" planting lies in concealing the limitations of a place and making it look far more extensive than it really is—in making one feel that the grounds are closed in by woodland into which one might go if he liked, rather than by the hard and fast borders of a "lot." In this veiling and enhancing of distances the Japanese are past masters, and it is from them that we shall have to learn the art.

In making an irregular boundary the important consideration is, How far from the house is the boundary? How dressed, in character, are the grounds? Because planting that looks admirable from a distance seems near at hand ragged and unkempt, while a planting of shrubs well enough for a fifty-foot suburban yard is hopelessly inadequate at a hundred and fifty yards. The Judas-tree, for instance (which some land-

Seat shaded by dwarf fruit-trees terminating a garden path.



scape-gardeners consider difficult to manage because of its color), "carries" beautifully from a distance of two hundred yards or more. Grouped with the white dogwood, which slightly precedes, and the Halesia, which follows, it is very lovely. Even alone against the background of green, or among other trees not yet awakened it has a rare beauty—the whole tree from the ground to topmost twig flushed with deep rose-color that is a quarrelsome magenta near at hand, but from a distance not a bit too strong. The eye picks it out as it picks out a scarlet maple in a swamp—with the same delight. But the Judas-tree in a group of shrubbery? Oh, no!

For boundary planting at a distance, young trees and trees of secondary growth are invaluable. Young white birches, yellow birches, the delicate hemlock with hazel for its pale-yellow bloom in November, the black birch, which is never sung but which is an exquisite thing in early spring, the poplar-leaved birch—these make a lovely bordering plantation for a dry soil; for lower ground, the young swamp-maple, dogwood, scarlet-berried alder, Halesia and Judas-tree, Amelanchier and cornel-tree. They arrange their branches themselves, if let alone, and will have foliage to the grass. With them, there is no need for the gardener to distress himself about filling in and stuffing the interstices with shrubs—the space takes care of itself. But here, at their feet, at the margin of your toy woodland, is a wonderful place for naturalizing bulbs and all sorts of lovely wild things.

For nearer planting the considerations are different. The orders are plain enough, "the planting must be natural," "keep an open centre," "mass the shrubbery"—well enough. But the grass is not in a natural state; it is smooth-shaven, and the shrubs, instead of being picked out by the eye in their brief season of splendor only, the rest of the time relapsing

into an indistinguishable greenery, are in evidence the whole time. Like the actors in a Chinese theatre, they do not leave the stage when their lines are said. It is not only the color that counts. There are other qualities and characteristics quite as important; the habit counts, the foliage counts, whether the shrub combines well with its fellows or is dissimilar counts. Wherefore, with a smooth-shaven lawn and a position near the house, a more polished character is necessary in the shrubs, and especially an all-the-year-around interestingness.

Here again the low-growing trees are exceedingly desirable. Among the best for planting at close range are the magnolias—*Soulangeana conspicua* and *S. Lenné*. These are graceful and interesting when not in bloom, charming in their winter buds and gorgeous in April and May. There is nothing lovelier for a close-range planting than *Magnolia conspicua* with, at its feet, Scilla and crocus spreading out into the grass. Another magnolia, *M. stellata*, is one of the loveliest, but it does not group well—it is compact and symmetrical in habit, and is better planted by itself or against a hedge of dark evergreens. The *Cornus florida*, the red-flowering variety or the white, combines well, if low-branched and not "trimmed up" with others of the Cornus, *C. Amomum*, *C. candidissima*. With the lilacs, plant Exochorda, which is very graceful and follows just after their glory is departed. Combine *Forsythia viridissima* with *Spiræa Thunbergii; Forsythia suspensa* with *Spiræa van Huttei* or *Deutzia gracilis*. Rose-colored or crimson weigelia can be put with the first group; the forsythia has finished blooming before it appears, and in habit it is not unlike.

For the north side, rhododendrons, which are best by themselves, or, if combined, they should be with Ghent azaleas or the native *A. calendulæcea*, which follows. Auratum lilies thrive well in the bed with rhododendrons. *Andromeda floribunda*

or *A. Catesbii* does well when a lower-growing plant is needed with the rhododendrons.

As to how the planting is done, how the coast-line is made irregular, the easiest way is this: When trees are to be planted, take tall stakes, six feet, perhaps, stick them in the ground where you think you want the trees, then go off at a distance and look. The trees must not advance on your domain as a solid phalanx, but as pine-trees from the pasture come in and take possession of neglected mowing-land; when together in a group they grow bolder and encroach farther, making little capes and promontories into which the green sea of the meadow extends, until you cannot tell where the wood leaves off and the meadow begins. When very well done, this may be lovely, but rarely is it well done.

The other type of boundary, though considered more ambitious, is really simpler; the most extreme form is the high wall which belonged to all the old gardens, coming from the days when defense was necessary and the garden must needs be an enclosure if it was to be garden at all; the walled garden, frequent enough in Europe, is rarely seen here except in the South—which is a pity, for it has a charm of its own, and if in the city it were the rule, instead of the omnipresent billboard-like partitions between the back yards, our small city gardens could attain a permanent beauty. There is a beauty in an old wall which a board fence cannot, by any stretch of the imagination, claim:

> "Oh, the old wall here, How I could pass
> Life in a long midsummer's day,
> My feet confined to a plot of grass,
> My eyes from the wall not once away!"

But would Browning or any one else sing thus enthusiastically of a board fence? Besides, do what one will to conceal it, it's

there, it's ugly, you know it, and during eight months in the year it shows plainly and every one knows it. For city gardens there should be walls of the same material as that of which the house is built. If the house is of wood, then a fence, if you like, but one of good design, not a bill-board to be hidden. Some of the older fences were dignified and admirable, with pilasters of good proportion, tall enough to give a good effect.

Some of the best garden walls and fences in this country are to be seen in Charleston, S. C. Here is sometimes a wall relieved by blind arches—the bricks in the intervening spaces being only one foot thick and covered with plaster, and against the walls are blossoming fruit-trees, pomegranates, Japanese plums, roses, and oleanders, and over them grows ivy—it's a lovely setting for a city garden.

As a substitute for the wall or the fence comes the living wall of green—the hedge. In this country we have no hedge that exactly takes the place of the English yew, which cannot endure our variable climate. In fact, the chief objection to a hedge in America is a climatic one—that there may be a day of judgment when two or three plants of a twenty-year-old hedge are, after living so long, killed in an unusually difficult winter. And then there is the hole! To find plants of the same size is not easy, unless one has planted and maintained a reserve for just such an emergency.

The usual hedges in the North are arbor-vitæ, spruce, hemlock, California privet. The Japanese holly, of which much was hoped, is not altogether trustworthy north of New York. In the South, where a much wider range is possible—ilex or magnolia can be used. A wonderful hedge could be made of camellias, though I never have seen them used for such a purpose.

At Cornish, in New Hampshire, Saint-Gaudens made tall

hedges of the common white pine; it was rapid, easily transplanted, growing in poor soil, and has there made a very satisfactory boundary; of its permanent value, one cannot be sure —immediate effect and permanence are not always met together, and we Americans are not fond of planting for posterity. On summer-places it is odd that deciduous hedges are not used oftener. Beech makes an excellent tall hedge, as any one can see who has been to the Harvard botanic garden. Another tall hedge which would be admirable in the North, and very sure to grow without difficulty, is the native thorn—Cratægus—in some of its many varieties. This is very lovely in May, when its white bloom would make an exquisite setting for the early bulbs, and when green again it would be as suitable a background for the flowers as any privet, and in the autumn it would be gay with scarlet berries which would hold their life and vividness long after the last chrysanthemums had gone.

For the remodelled farm one of the simplest of garden boundaries, and one very much in keeping with farm simplicity, is the low stone wall with a close-set row of fruit-trees behind it. This makes both a definite boundary for the garden and a very charming background for the flowers, while on the fruit-tree side will be the kitchen-garden, the orchard, or field.

The windbreak often becomes a garden boundary on a farm. The windbreak, as every one knows, is a row of close-set trees planted about fifty feet from the house on the windward side and the cold side, whichever that may be. It serves as a shelter for the flower-garden or the kitchen-garden; also, it sets it off; it materially reduces the furnace bills. The windbreak may be of any trees that grow well in that locality; if made of thorn or honey-locust, it will keep out cattle as well as barbed wire. In the bleak, wind-swept New England towns

of the Atlantic coast windbreaks would be a godsend to the gardens and no small blessing to those who work therein. Why since the time of the Pilgrim fathers, for nearly three hundred years, the good folk have gardened without them, and exposed both their bushes and their persons to the bleak North Atlantic winds, is difficult to understand. It can only be accounted for by the New England preference for difficulties and the Puritan aversion to a life of ease for themselves or their flowers.

A grape-arbor or even a grape-trellis of single posts does well for boundary purposes on the farm. It is a division; it affords a setting for flowers, and yet to its back may be fastened wire-fencing stout enough to keep out cattle; or if, instead of heavy wire, the homely but useful chicken-wire is stretched, the hens can be securely excluded, which on a farm is no slight achievement.

With the trellis one comes to the other form of garden boundary which Bacon calls "carpenter work."

In more elaborate designs, the pergola makes a peculiarly appropriate garden wall. But a pergola is not a thing to be rashly set up in one's garden. If it doesn't fit, it is one of the most distressing of garden adjuncts. It should be in relation to the house and architecturally in harmony with it; therefore, whoever plans one had best consult the architect who built his house.

The grape-arbor is a humbler form of pergola, more unassuming; in fact, it has no architectural pretensions. It seems to differ from the pergola in being of simpler, ruder construction, utilitarian solely, and it has lateral supports; narrow strips running lengthwise, two feet apart perhaps, are convenient for training the vines, which should make a lateral growth as well as an upright one.

As for the mechanical side of garden boundaries, the all-important consideration with the living ones, whether hedges or irregular planting, is that the trees or the shrubs should grow, and that speedily.

In a bordering plantation near the seacoast or for a wind-swept garden it is necessary to plant closely at first, yet not to make a solid wall of trees that will offer a broadside to the wind and so be easily demolished or seriously injured. The gales should be met head on by small groups of trees standing shoulder to shoulder, one a bit behind the other, in a kind of wedge-shaped formation, so that the foreground ones in any stress of weather lean back on their brothers and do not take the brunt of the gale alone. Whatever the desired form of the tree-belt on the garden side, this should be the formation for the windward side. Later, when the trees are well established, they will close up and form, if you wish it, a solid wall of green for the garden boundary, but these broken groups are the speediest way to establish it.

The soil should be, of course, well prepared and deeply dug; especially is this necessary for a hedge. If during its early years the hedge is clipped hard back, it will be thick and bushy at the bottom, where thickness and bushiness is especially desirable. If this has not been done, no amount of cutting back in later years will make an evergreen hedge throw out branches at the base.

In an irregular shrub-and-tree border the most important care is rarely given, and that is adequate thinning. Many a landscape-gardener makes his plantation with an eye to immediate effect, intending, of course, to thin later, when the trees are fairly well grown, but he never has the chance to do it, and the owner of the place either neglects it completely or else, if aware something should be done, is afraid to touch it;

but whatever the motive, the result is the same and the shrubs become choked, the young trees stuffed with the undergrowth. The lightness and airiness it might have had at close range, while presenting from a distance the outline of varying green, is wholly absent.

The other type of boundaries need, of course, practically no care, except occasional paint if they are of wood. It should be remembered, however, that vines near a pergola or a fence need especially good soil and plenty of water, for the ground there is sure to be drier than elsewhere.

Some of the best vines for planting on walls are, for a year-round beauty, the English ivy, the *Euonymus radicans vegeta*, and, for summer decoration, wistaria, *Ampelopsis Vetchii*, trumpet-vine, and *Clematis paniculata*. The best pergola vines are wild grape and wistaria.

The setting of the garden may not seem as important as the garden proper, but it is important for the plants. A charming song may be marred by a poor accompaniment—an inadequate, ill-suited frame is an affront to a beautiful picture; no woman, however lovely, can look her best when her face is framed in atrocious millinery. So with a garden. One of slight pretensions suitably framed will have a charm and individuality of its own and a satisfyingness which the most pretentious and expensive planting, if seen wholly without a setting, may not possess.

XII

PLANNING A GARDEN ON PAPER

It is well that "a man's reach should exceed his grasp," but when a woman's does (and most amateur gardeners are women) the result is likely to be a case of nerve-exhaustion. Therefore it is well, above all things, that the garden be small enough or the planting of one's grounds simple enough to be maintained in comfort both to one's self and to one's pocket-book, that gardening may not become a weariness but remain a pleasure, and the garden be a delight to the eyes instead of a visible evidence of things undone.

There is no garden like the prospective garden. In the mind's eye it blossoms like the rose of the most expert florist; it is untouched by the terror of the cutworms which devour in darkness, of the drought that wastes it at noonday; its flowers bloom even as the rhetoric of the seedsmen.

Now, in order to realize this pleasing vision, there are certain homely details which, before she buys her seeds and decides upon her summer's planting, the prospective gardener would do well to consider, such as these: What sort of diet can be provided for the plants? Is the soil rich or poor? If poor, where can well-rotted manure be had? How much can be spent on fertilizer? What water-supply is possible? What position can be given the plants: shade or sunshine, exposure to wind or shelter?

And here are a few "Don'ts" for beginning gardeners:

Don't try for bargains in plants. Get good, carefully packed stock from a trustworthy, well-established firm.

Don't send in your order the last minute and expect to get the choicest stock.

Don't begin your garden experience with extraordinary novelties. Such plants usually require expert care to bring forth anything but disappointment.

Don't try too many sorts nor plan too large a garden; a few plants well-grown and a small garden well cared for are better than many unhappy plants on a large area untended.

Don't slight the preparation of the ground.

Don't economize on manure.

Don't use any but well-rotted manure; if that is not available get commercial fertilizer.

Don't fail to find out all you can about the soil.

What You Can Do in the Winter

The time to read practical garden books is the winter. If such books aren't available, excellent cultural directions are usually found in the catalogues of the best seedsmen and nurserymen, who know to their cost that, if things go wrong because planting is not properly done, it is always (in the customer's mind) the "fault of the plants." One must consider well whether the garden is to have adequate care or but languid attention. If but little time and energy be the portion of the gardener he had best plant hardy vines beside his porch, give the preference to shrubs rather than flowers, and select for his flowers those complaisant ones which are fairly indifferent to matters of diet and situation.

Plan the whole place carefully. If all can't be done or afforded in one year, why, patience is possible—"first the blade, and then the ear" is good gardening as well as Scripture. Above

all, make friends with some working gardener. You need not take his advice on planting schemes, but you can learn to know by the "feel" of it and the look of it if the soil is right, and how the tiny seedlings may be pricked out and transplanted in safety. If one remembers to have plenty of green in the garden, to buy seeds of single colors instead of mixed sorts, and to introduce violent and belligerent colors only with the utmost caution, nothing very dreadful can happen. And then mistakes may be noted and misfortunes laid up in one's mind for future profiting, becoming in this way very valuable.

The Way to Go About It Is This: Make a plan of the place on paper, locating house and outbuildings, paths and drives, existing trees and shrubs—the whole done to scale. Do this on a good-sized sheet of paper, allowing, say, a quarter of an inch to a foot. The squared paper used by architects greatly facilitates this plan-making. Then, if there are unsightly spots that must be shut off from the view by planting, mark them down. It will be a convenience also to note the situation, such as "shade" or "partial shade." Put down also the points of the compass, that you may not forget and try to grow roses on the north side of your house.

Next Consider What You Want. If you prefer having a display from the street, why, plan for it. If, on the other hand, you care most for seclusion, for a place where one may have tea and a chat in quietude, arrange to have it. This is difficult to achieve in a suburb, but it may be done. One good lady of my acquaintance has her porch so screened from the street by shrubs that she can breakfast there in comfort of a June morning, and have a glimpse of her garden the while, in as unvexed privacy as if within doors.

If there are children, then plan a playground where there will be no restrictions; or, if the place be too small for that,

restrict the plantings to shrubs and trees and vines that are not likely to be trampled on.

Before indulging in any garden fancies, however, one must make provision for the common, obvious needs of the house, such as that here the coal is put in; here the ash-can must stand; nor should one hide one's head ostrich-like from the vociferant fact that the weekly washing is no rare exotic but the hardiest of perennials, which, whether the flowers bloom or not, can be counted upon to appear on the lawn of a Monday with a very definite degree of certainty—and it is not decorative. A drying-yard should be screened by shrubs, by a tall hedge or a vine-covered lattice. It will add more to the appearance of a suburban place than many flower-beds.

Some Common Mistakes in Planting Are These: 1. Trees too close to the house. This causes dark and damp rooms in the upper stories by excluding air and sunlight, and defeats the purpose for which they were set out, since the shade is cast on top of the house, not on the lawn; it also spoils the effect of the tree, for the stem is so close that it gives the effect of a musket held against the shoulder; the foliage is too near to serve as a frame. Fifty feet from the house is quite near enough. In the suburbs, where the distance from house to street is but slight, plant the shade-trees beside the sidewalk, not inside the grounds.

2. Scattering shrubs over the lawn. The smaller the space the more necessary it is not to "clutter" it. Keep an open grass space and put your shrubs at the borders, taller-growing shrubs at the back, and your grounds will look larger and be more restful.

3. Filling up the space under trees with shrubs. Although necessary sometimes, when one must have a close screen, such planting spoils the effect of a tree which does not need

such garnishing, and the shrubs rarely do well because of insufficient soil-nourishment.

4. Breaking up the lawn space with flower-beds. In the North, from October until June—eight months in the year—such beds are brown, unsightly objects. "Bedding out" is the most expensive and most exacting form of gardening. The same flowers planted near the house, against a background of vines, or in border beds with shrubs behind them, are infinitely more at home.

After one has arranged the planting so that the house and grounds look as if they belonged to each other, next comes, if you are to have one, the garden proper. If it be at a little distance there is less need of having it a "good match" for the house. If you select a slightly sheltered situation, with protection of some sort from the heaviest winds, you can begin your planting earlier and many of the plants will find it more comfortable.

If the place is not brand-new and expressionless there are likely to be some features—tree or shrub—which stand squarely in the way of one's best-laid plans. Now, a good landscape-gardener thinks a long time before obliterating any "feature," for the obstacle which blocks his path may prove (as in the case of Balaam) an angel unawares: something which will give character and individuality to the whole place. Therefore first see if the garden can't be planned to fit the objection and the obstacle become an essential part of the plan. Much good gardening has resulted from having to put up defenses against ugliness.

At a delightful place in Vermont an old apple-tree, which very nearly had sentence passed upon it, now gives an atmosphere to the whole garden. And yet, on the other hand, one should remember that the position of a shrub or tree is

not as irrevocable as an act of Providence. If you are sure its present place isn't the right one, if last year its color jarred with that of its neighbor, why, dig it up carefully and put it where it will comfort the eyes instead of worry them.

Then, with the plan before you, take your list of flowers and shrubs and "plant" them. Write down "deutzia," "iris," and "poppies," and the like, where you think you will have them go, and see how they fit as to situation, as to time of blooming, and whether the colors are going to clash with one another; if you foresee trouble change them about or select something that will do better. Sometimes it is easier to make three plans, one for spring, one for summer, one for autumn, and arrange your planting on these. For a flower-garden one often makes a plan showing the color scheme for each month. If you are to be away all summer, use the space for autumn and spring flowering plants, and in the summer let the garden go bare as Mother Hubbard's larder. If it is a year-round place, be sure to plan something that will give a bit of cheeriness in the winter.

Impromptu Gardening

One's first instinct when ensconced in the average new suburban home is to plant something at once—anything; for real-estate syndicates, when "opening up" property, run a kind of improving flat-iron, as it were, over the face of Mother Earth until no natural feature, no tree or hillock, is left; all is as smooth and expressionless as a pail of lard. About the house there is no shrub or vine to bless the landscape, no architectural features but the four clothes-posts in the back yard. Into this hungry space one thrusts tree or shrub or flower-bed—anything—to relieve the utter blankness. But here the trouble begins.

Don't Plant in Haste to Repent at Leisure.—Under such circumstances it is hardly possible that the planting is done otherwise than in haste, and planting in haste is repented at leisure. The selection is made hurriedly, the result of a rapid visit to a near-by nursery, or at haphazard from a catalogue, or from a vague remembrance of what some one else has planted; the position of the shrubs and trees is determined only when the plants themselves are lying on the ground with roots exposed, and the laborer, shovel in one hand, plant in the other, pauses to inquire: "Where shall I put it, ma'am?"

One can't make the inside furnishings of a house individual and instinct with the personality of the owner, as every house ought to be, by a single hasty descent upon a department store; nor, "by the same token," can the surroundings of a house—the garden—be arranged by a like proceeding. It is because of this hasty selection and planting that so many lawns look like bargain-counters in assorted shrubbery, though their owners really "know better." The worst of hurried buying is that it prevents more careful choosing.

Unless all has been carefully planned, it is far better to be content for the first summer with temporary, inexpensive planting. One can have an abundance of flowers by the sowing of annuals, enough to last from mid-June until frost; while the permanent planting—that is, trees and shrubs and hardy perennials, which when once set in the ground are supposed to stay "put"—may be left until the autumn.

Landscape-gardeners can make plans in January, but the amateur is much more likely to know whether or not he wants a forsythia when he sees a shrub as golden as a patch of sunlight on a neighbor's lawn than when its brown branches alone are in evidence.

Therefore, instead of buying, look around and plan. If

you are in the country, go into the woods and fields and find out for yourself what manner of plants thrive in your locality. If you are near the city, visit parks and botanical gardens. If you are near Boston, don't miss the Arnold Arboretum at Jamaica Plain; visit near-by nurseries—nurserymen don't mind in the least your coming, whether you buy or not; in this way you can make a personal acquaintance with the plants at their season for receiving visitors. Many of the loveliest spring-flowering trees and shrubs are not so expensive as are those one sees everywhere repeated to tiresomeness.

Therefore, look and make a tentative list. The children will enjoy the fun of such "choosing" immensely, when the catalogue form is beyond them. Take a large piece of brown paper and put a plan of your place on it, tack it up somewhere, then, as you see shrub or plant, mark each name down on your plan just where you think you would like to put it. So much for the prospective garden. Now for the temporary one.

Temporary Gardening

If your soil is poor and you care to have a lawn that will be the despair and admiration of your neighbors, you can do nothing better than to plough the whole place, fertilize it, and for this one summer turn riotously to vegetable-gardening; grow corn and peas and beans in rows in your back yard; and if you have enough indifference to public opinion to do the like in front, plough and harrow as in the rear and sow crimson clover; then border your front path with white Drummond's phlox, so that the effect of the whole will be fairly good. There will be no lawn-mower to menace your leisure, passers-by will stop to admire the gorgeousness of the display, and in September you can plough it under, seed to grass, and you will have saved enough on fertilizer and made enough on vegetables

to pay for many plants, and your next summer's lawn will be worth while. The crimson clover, by the way, should be mowed after blossoming, before it seeds.

What to Plant and Where to Plant It

Against the house use annual vines, and plenty of them—tall nasturtiums, Cobæa, Maurandya, the wild cucumber (*Echinocystis lobata*)—and you will be sure of something; especially lovely are the Ipomœas, which may be had in a wide variety of colors (the seeds of the great white moonflower, by the way, are very hard, and to hasten germination it is well to file a notch in the seed before planting—some Ipomœas need to be soaked in hot water before planting).

If your lot is directly against your neighbor's, with not even a fence between, screen it by planting rows of corn with the tall and rather coarse white of the tobacco-plant (*Nicotiana*) in front of it, and deep-blue corn-flowers; this would give you a pleasing combination. Rows of tall sunflowers with dwarfer varieties in front to keep them from looking ungainly would do as well; castor-beans would also be an effective screen, if you like them. None of these screens would cost more than thirty cents. Or put up a fence of chicken-wire, and on this grow vines—wild cucumber, Ipomœa, Cobæa, or scarlet or maroon nasturtiums. With only dark-red nasturtiums and the greensward the plot would look very well.

If the grass is not good, which is probably the case, have against your fence no striking color, only the green of the wild cucumber and the green and white of the balloon-vine, and make the rest of your garden frankly a picking-garden with flowers in rows that a cultivator may run between—have China asters in abundance, stocks, corn-flowers, poppies, dahlias, marigolds, coreopsis, mourning-bride.

If you like color schemes, African marigolds, orange and yellow mixed, would be charming against a green background; or zinnias—maroon, salmon, pink, and white varieties planted in rows of five or six.

XIII

WHAT TO PLANT

Many gardeners miss having some of the most delightful plants just because they have got used to limiting their gardening to sowing seeds of annuals in the spring and setting out bedding plants a bit later, and the growing of perennials and biennials seems a serious undertaking. Now these are not difficult; the only difference is that they will not be hurried. To borrow a simile from the kitchen, they are to annuals as things made with yeast are to those raised with baking-powder: they must be "set overnight"—that is, the seed must be sown one season if the plants are to bloom the next. With many perennials this is best done in July and early August for the simple reason that this is the "natural method," that at this time one may have the freshly ripened seed instead of last year's.

After the last transplanting is done in June the seed-bed is made ready again, enriched with a little sheep manure, and here are sown in narrow rows perennials and biennials, which in September will be ready for transplanting to their permanent homes.

Biennials Which May Be Sown in Late July and Early August for Next Year's Blooming, Preferably Before August 1—The Small Plants May Be Set Out in April or October

Biennial Evening-Primrose (*Œnothera biennis*, variety *Lamarckiana*) grows to the height of three feet, and in late June and early July bears a profusion of delicate lemon-yellow flowers. It will thrive in any ordinary soil, but needs the sun.

Canterbury-Bells (*Campanula medium*).—The plants vary in height from two to four feet and are a mass of bloom in late June and July; the flowers are white, pink, and blue, and very effective. Campanulas require good soil and sunshine.

Foxglove (*Digitalis*).—A most comfortable plant for a new gardener; it will grow in sun or half-shade, has no objections as to poor soil, a northern exposure, or nearness to a stone wall. The flower-spikes reach from two to three feet; both white and pink varieties are charming, but the white is the most striking. *D. gloxinoides* is the best variety.

Hollyhocks (*Althea rosea*).—Every garden should have its towering stalks of hollyhocks which are abloom in July and August. Give them a rich soil, plenty of sunshine, and an occasional watering with liquid manure. The best varieties are the dark maroon-red, salmon-pink, white, and yellow.

Iceland Poppies (*Papaver nudicale*).—These are charming little reddish-orange flowers which bloom in early spring and again in late autumn.

Sweet-William (*Dianthus barbatus*).—An old favorite which makes a charming edging. The plants are about a foot and a half high, and the flowers are in the gayest shades of pink and red, and also in white. Once started, sweet-williams will sow themselves and need little other care, thriving in any ordinary soil, but they need sunshine.

Wallflowers (*Cheiranthus cheiri*).—Golden-brown and yellow flowers of delicious fragrance. Require protection in winter, a good soil, and plenty of sun.

Perennials Which May Be Sown in July and Early August —The Small Plants May Be Set Out in April or October

Columbine (*Aquilegia*).—A well-known flower of charming colors and rare delicacy of form, growing from one and one-half to three feet in height. It is best grown from newly ripened seed, sown in July and August. The seedlings should be kept shaded until the plants are mature. Columbines thrive in ordinary soil, sun or half-shade. There are many varieties which bloom in succession from May until August.

English Daisies (*Bellis perennis*).—A charming little plant about four inches in height, with rosettes of heart-shaped leaves surmounted by clusters of pink or white flowers, which bloom their best in early

spring, continuing more or less throughout the summer. Delightful when combined with forget-me-nots and tulips. These little daisies need sunshine and good soil.

Pansies may be sown now for winter-blooming in the frames. They need a rich soil and prefer partial shade.

Larkspur (*Delphinium*).—A color exquisite in the garden, best grown from freshly ripened seed sown now. The best varieties are *D. hybridum*, *D. formosum*, and *D. cœlestum*.

Horned Pansy (*Viola cornuta*).—Especially good for carpeting rose-beds, since it likes the same sort of soil, but has roots which do not strike deep and rob the roses.

These are a few of the most important. There are many other perennials which can be started in July and early August.

Garden Lilies Which Must Be Planted in August

Most lilies should be set out in October, but here are a few which are positive in their preference for August. For lilies the bed should be deeply dug—two feet at least; unless the subsoil is of gravel, put in a layer of broken stone for drainage. The soil is a very important factor. It should be composed chiefly of muck and leaf-mould. Don't use manure—lilies hate it as rhododendrons hate limestone; in fact, the two like very much the same sort of soil. To avoid any chance of intimate contact with soil they dislike, the lily bulbs are often placed on a little cushion of sand. Set the bulbs twelve inches deep, tipped on one side. Lilies should be protected in winter with a mulch of leaves or straw litter at least three inches deep.

American Turk's Cap Lily.—This is one of the lilies which should be set out in August. It is a most striking plant, growing five to seven feet high and bearing thirty to forty of the brilliant flowers with rich orange petals, spotted with black and tipped with red. A clump of them in July and August makes a blaze of color in the garden. This lily is easily cultivated in rhododendron beds or naturalized among wild flowers. It prefers half-shade, but grows well in the sun. There is a European variety with purplish-crimson flowers, but the American is better.

Canadian Bellflower Lily.—A June-blossoming lily which grows wild throughout New England and is strikingly decorative. The clusters of nodding, bell-shaped flowers, yellow spotted with black, are borne in spikes two to three feet high. Plant in a sunny location in clumps of four or five. There is also a red variety; both are excellent for naturalization in a wild garden.

Madonna Lily (*Lilium candidum*).—This is the pure white lily of exquisite form which the early Italian painters often introduced into their pictures of the Annunciation. The fragrant flowers are clustered on spikes two to three feet high. It flowers in June, at the same time as the larkspurs, with which it makes a very lovely combination. One of the secrets of growing this lily is to set out the bulbs in August.

The Bedding-Out Plants

These are those tender plants which may only be summer visitors in the garden, since they are born and raised in the tropical climate of conservatory or greenhouse, only leaving it in June to return to it in early October, unless they are abandoned to their fate and left out to die. Their chief end is to be "effective" during their brief visit.

Much has been written against the "bedding-out" garden, and with reason. It is usually more of a "show-garden" rather than that of a flower-lover. In the North it means vacant spaces of brown earth from October to July. Its chief sin is that here a flower "degenerates into a colored ornament." Plants are treated merely as an assemblage of colors—a battalion in which, if a single member falters, the ranks must instantly close.

That people misuse them is not the fault of the plants, and if in June one's gardening is not begun, the "bedding-out" plants in their character of summer visitors or "accommodators" (as the pleasing Boston phrase characterizes women competent to fill any and all deficiencies who come in when the household service has gone wrong or vanished) are a very

present help, although (like the accommodators again) they are more expensive than their fellows, which can be cheaply raised from seeds one could have planted in April or May. The following are the most important "bedding-out" plants:

Ageratum is a tender annual usually started in February under glass and set out in June. It has soft, fluffy flowers of a vivid blue, and has suffered much from being almost invariably planted with red—a combination as popular and distressing as that of bright blue on a red-haired girl. Blue in a garden requires plenty of green.

Begonias are best in a bed by themselves, so are fuchsias, though they can sometimes be combined with other flowers—forget-me-nots or pansies. The best bedding geraniums are Mrs. E. Rawson, a single variety of a rich, glowing scarlet with slight crimson shading on the upper petals; Ricard, semi-double, bright vermilion, and Beauté or Madame Pointevine, the popular double salmon-pink variety.

Heliotropes may be had in dark or light shades. They combine well with either geraniums or carnations.

Lobelia makes an excellent edging and keeps in good shape for an unusually long period.

Lemon Verbena is grown for its fragrance, but its foliage is good.

Salvia is effective used as a low hedge on either side of a path, but because of its vivid color it should never be planted near anything but white flowers.

For a Two-Foot-Wide Bed in Front of a Piazza try one row each of heliotrope and geraniums, the plants being set out about six inches apart; or fuchsias and begonias might be used in the same fashion, the begonias at the edge.

To arrange a three-foot-wide border of salvia set the plants about a foot apart; in alternating rows six to twelve inches apart.

What to Plant in Half a Dozen Beds

The following beds are supposed to be from three feet and a half to five feet in width; if wider, a fourth row can be added either of lower plants at the front, or of taller plants at the back. Sweet peas could be used at the back of any of the borders given below. For a wide border use cosmos; for one to be seen from a distance, sunflowers are good.

I. Zinnias (salmon-pink and maroon).
Shirley Poppies and Corn-flowers.
Edging of Dwarf Sweet Alyssum.

II. Sweet Peas.
Mourning-Bride.
Yellow and white annual Lupin.
Edging of Dianthus Salmon King.

For the first bed sow the zinnias so that the seedlings will be six inches apart; after the poppies and corn-flowers have gone by, pull up the stalks and move forward the alternate zinnias so that they stand a foot apart. For the second bring forward the seedlings of mourning-bride after the lupin has passed.

III. *Coreopsis atrosanguinea.*
White Petunias.
California Poppies (edging).

IV. Double row of Gladioli (pink and white and pale yellow).
White or pink Balsam.
Edging of *Phlox Drummondii.*

The third bed is for a shady place. For the fourth, when double rows are used, as with the gladioli, set the plants alternately—so:

x x x x x x x x
x x x x x x x

V. *Nicotiana* (Tobacco-Plant)
Dwarf Nasturtiums (maroon-red and yellow).
Edging of Dwarf French Marigolds.

VI. African Marigolds (yellow and orange).
Blue and white annual Larkspur.
Edging of Mignonette.

The fifth bed will grow for anybody. The sixth is perhaps the most difficult. After the larkspur has gone by push forward the surplus marigolds, which will bloom until frost.

Some Flowers That Will Grow for Anybody

Although the plants of the lists given are noted for long-suffering, I do not mean that they prefer neglect or that they will thrive under any possible treatment, but they will bloom under conditions that other plants would find hopeless.

For the gardener who is "unskilled, unpractised" here are plants which will insure safety from disappointment:

PERENNIALS	ANNUALS
Bee-Balm (*Monarda didyma*).	Balsam.
Evening-Primrose (*Œnothera fruticosa*).	California Poppy.
German Iris.	Coreopsis.
Globeflower (*Trollius asiaticus*).	Marigolds, African and French.
"Golden-Glow" (*Rudbeckia*).	Morning-Glory.
Japanese Bellflower (*Platycodon grandiflora*).	Nasturtium.
Michaelmas Daisy (*Aster Novæ Angliæ*).	Portulaca.
Pearl Achillea (*Achillea ptarmica*, variety "The Pearl").	Sweet Alyssum.
Tiger-Lily.	

Plant the German iris against the wall, or where it will have the shadow of a tree in summer. The bee-balm, in a shady corner, will flame out in color almost equal to the cardinal-flower's. If there is a dry, bare, sandy, sun-scorched spot, that is the place for portulaca, which nothing in the way of drought seems able to discourage. Next to portulaca in its endurance of thirst come the nasturtiums—both the climbing and the dwarf sorts. If morning-glories are blessed with the early sun they seem to require little else but that their seed be put in the ground.

Tender Bulbs and Tubers

These are the joy of the belated gardener. A goodly number of gladioli planted in May will give a radiant display from

late July until frost. Some of the best and easiest of the tender bulbs are as follows:

Gladioli.—One of the easiest bulbs to grow is the gladiolus and one of the most encouraging, since it gives more bloom to the square inches of ground it occupies than almost any other plant I know. Gladioli need plenty of sun and rich soil, but the roots should not come in direct contact with manure. Plant the bulbs three inches deep and six inches apart. Planted about May 1 (in the latitude of New York) they bloom continuously from the end of July until frost. It is not necessary to buy named sorts but pink, scarlet, and red shades, oranges and yellows, and the new blues and purples, come in separate mixtures and should be kept apart. The reds and scarlets are least desirable—they rarely harmonize with other flowers.

Red-Hot Poker Plants.—Tritomas or "Red-Hot Pokers" are striking. The tall spikes of orange-red flowers stand bolt-upright above the foliage (two and a half to five feet, according to variety). This plant requires sun and good soil, and its rather sensational character suggests that it be planted with discretion and a suitable background.

Montbretia.—Another rather strident plant. Its late-blooming starry flowers, orange, red, and yellow, are striking—so much so that it is rarely combined with any but white flowers. Needs good soil, plenty of sunshine.

Dahlias.—These have been wonderfully improved of late and are now a valuable addition to any garden. The most important classes are the cactus, decorative, show, fancy, and single dahlias, and there are hundreds of named varieties of each. The most beautiful perhaps are the cactus dahlias. These vary in height from three feet to four and a half, and the colors are indescribably charming—striking reds, iridescent salmon-pinks, rich maroons, and pure yellows. Some of the best varieties are these:

Clara G. Stredwick—three feet; salmon, shading to yellow.

Mrs. Freeman Thomas—three feet; clear yellow centre, shading to orange toward the tips of the petals.

J. H. Jackson—four feet; rich maroon.

Lord Roberts—four feet; white.

Britannia—four feet; salmon, pink, and apricot.

Countess of Lonsdale—rich salmon-red.

Mary Service—four feet, pinkish heliotrope, shading into yellow.

The flowers bloom in from six to eight weeks after the tubers are set out. For dahlias the soil should be deep and rich and spaded to

the depth of at least a foot. The tubers are set out two to three feet apart and four to six inches deep, but covered at first with only one to two inches of soil. Each plant should be allowed to send up but a single stalk, and when this is well above ground the earth should be spread over it gradually, keeping the ground level. The soil should be kept loose and must be frequently and thoroughly stirred up with a stick. Water once a week, not oftener, and loosen the earth about the plant next day. Plant dahlias in late May or June. After the flowers begin to bloom then the ground should not be disturbed more than an inch in depth. At this time a mulch of fine, decomposed stable manure will prove beneficial. Dahlias require open sun.

Cannas.—Like the dahlia, the canna has recently been greatly improved, and was in much sorer need of improvement. Now there are many better sorts than the old-fashioned canna, whose small flower of an unpleasing red and whose bronze-tinted foliage and tropical appearance almost invariably struck a jarring note in its usual northern environment. The best of the new cannas are the Crozy varieties. These grow from three to four feet in height, and bloom, if set out early in June, during the late summer and until frost. For cannas the soil should be light, rich, and deep. An occasional watering with liquid manure will be a benefit.

If you will take time and the calendar by the forelock cannas and dahlias can be started in flower-pots in the house or in frames for early blooming; I prefer to have them blossom in the late summer and autumn, when there in not such a profusion of flowers as in July and early August, so I always plant them in the open ground in June.

A Plant That Every Gardener Ought to Know: Ismene, a charming though almost unknown plant, should be a joy to any amateur gardener. It has the pleasing habit of blooming from two to three weeks after the bulb is put in the ground; the flowers are lily-like, large, and white, the foliage not unlike that of the iris, the plant about two to two and a half feet in height. Bulbs may be set out in late May and June, in holes from four to five inches deep. Ismene requires no peculiar treatment, only plenty of sunshine and ordinarily good soil.

A Good Foliage Plant.—One of the best foliage plants is *Caladium esculentum.* Its immense leaves measure two feet and a half wide and from three to four feet long. The plant is especially effective for a position near a pool or fountain. Plant late May and early June. Caladiums require only common garden soil, may be planted in the sun or in half-shade, but should have plenty of water.

XIV

PLANNING A SPRING GARDEN

Autumn is the Time to Make a Spring Garden

Any one may have a spring garden. Flowers in July and August are had at the expense of much weeding and warfare with insects, but from March until the end of May flowers may be had for little more than the putting of bulbs in the ground.

If ever was given a prodigal return in beauty for a small expenditure of time and labor and money, it is by this same blessed race of spring-flowering bulbs. For city folk and suburbanites, for folk on northern farms, where the long, hard winter seems as if it would never end, the blossoms of the early spring which seem to come of their own accord are a peculiar delight.

What Bulbs to Buy

Catalogues show a bewildering range of varieties. It is cheerful for the gardener with a modest pocketbook to remember that the inexpensive old sorts are often not only the safest, but, moreover, the best. The low price itself is due to their being extremely easy to grow. The fact that a flower is "common" does not make it the less lovely—the sky and the sunshine and the green grass are common also. One may have a wealth of poets' narcissus in May—and once in the garden it "lives happily forever after"—for the price of a few expensive hyacinths, which are by no means so hardy nor so

easily grown and "run out" in a few years. The common daffodils (both double and single) are very lovely, and if given half-shade are a yearly delight.

The common snowdrop (*Galanthus nivalis*) is much more delicate than the named varieties and spreads happily with no care at all, while the more expensive sorts are uncertain and difficult. Crocuses may be had at three or four dollars a thousand if one gets single colors, and it is unnecessary to buy named sorts. Among the best all-round tulips are the Duc van Thol varieties for early ones and the Darwin for late; the latter may be had in a mixture for two dollars a hundred.

Where to Plant Them

Aside from the show-beds, which are not so easy to manage and, unless just right, are disappointing, there are many delightful uses for bulbs. Plant crocuses at the foot of shrubs or in colonies in the grass. Take up a piece of sod and set the bulbs in irregular patches, then replace the sod. They should be three inches deep and about four inches apart.

Instead of trying to make grass grow under a tree and sun-loving shrubs eke out an unhappy existence in the shade, plant the pips of lily-of-the-valley and they will carpet the ground in a surprisingly short time. On the north side of the house, where the grass does not grow well, plant snowdrops in it just as you planted crocuses. All the care needed is to refrain from the use of the lawn-mower until the leaves have wilted. In a hardy border set your daffodils and poets' narcissus (which cost five dollars a thousand), putting the bulbs of the latter six to seven inches deep and only three inches apart, to make strong clumps, and you will have plenty to cut and bring into the house. (Cut when half opened and

you do not exhaust the bulb.) If you plant also the *poeticus ornatus*, which blooms earlier, you will have flowers all of May. Poets' narcissus is also good as an edging to a bed, and after it is done flowering annuals may be sown. The lovely little *Scilla Siberica* and Chionodoxa, if planted in little colonies, will delight you in March with flowers of an exquisite, almost gentian blue. One Princeton professor has a bit of ground against his house abloom from May until mid-June. Against the house are trained *Jasminum nudiflorum* and Dawson roses. In front are planted poets' narcissus and daffodils. In late March the Jasminum blooms, then the daffodils, next the narcissi, next the roses, and then the professor goes away.

XV

THE OLD-FASHIONED GARDEN

The charm of old-fashioned gardens lies not so much in the fact of there being in the flower-beds this or that plant which our great-grandmothers used to grow as in a certain delightful quality of homelikeness. In the old days the garden was almost invariably planned in close relationship to the house. A wall or fence formed three sides of the garden enclosure, the house the fourth side. In the smaller of the southern gardens and in Colonial gardens in the North the wide hall went directly through the house to the garden, and the broad central path of the garden was directly in line with the hall. Or, if the garden were at the side of the house, then it was under the living-room windows.

In the Colonial days the first consideration was not that the garden should make a notable show from the street and present to the rapt beholder a marvellous and astonishing color scheme; rather, it was a place of retirement, of unvexed quietness, whither one might go to enjoy "a green thought in a green shade." And if Nature had not been thoughtful enough to provide for this, then arbors were constructed as substitutes.

Whether by choice or by necessity, therefore, the old-time garden was usually a garden enclosed. Either there was a wall or fence or else there was a tall hedge of hemlock or of privet. In the old southern gardens—city gardens, that is—the walls were as high as in the English gardens, built of brick or stone; sometimes the effect was lightened by "blind arches,"

and against the walls were trained roses or fruit-trees. Usually the posts of the typical Colonial fence are tall, surmounted by an ornament in the shape of a ball or the pineapple of welcome; between the posts the intervening pickets are graduated, forming a dip like a crescent. But the chief merit of Colonial fences is their excellent proportion. In the simpler gardens of city yards a common type was the high board fence, very much like our present back-yard fence, but the two-foot-wide lattice which surmounted it, and the vines and shrubs trained against it, took away the reproach of its ugliness.

Within the garden the beds were outlined with box or bordered with violets or thyme or sweet-william—any convenient edging; sometimes they were outlined with bricks or tile.

The Plan of the Old-Time Garden

The old-fashioned garden was planned to fit the garden space. Sometimes the beds were laid out in elaborate geometrical designs, but the geometry was in the lines of the beds, not in the planting; within their box borders the flowers bloomed with so cheerful a luxuriance and so careless an abandon that when the flowers were in blossom the lines of the beds were practically unnoticed; only in winter, when the flowers were gone, would the "pattern" of the beds become evident, when—outlined with fat and comfortable borders of box—it made a sight more pleasing (to my thinking) than the bare brownness of empty flower-beds.

Being close to the house, the garden was naturally arranged in relation to it. As gardeners say, it was "on the same axis with it," which means that, looking from the house door, the garden-paths do not appear askew. If the door at the rear of the house or at the side of the house (the garden

side of the house, as the English books call it) opens on the garden, from it one looks down a main path, if not the central path, in a line with the hall.

Very often an arbor stood in the centre of the garden with paths radiating from it; sometimes a sun-dial had the place of honor. At the end of the garden farthest from the house one would be quite likely to find a little summer-house, an arbor, or at least a covered seat.

Arbors and Sun-Dials Were Much Used

There was almost always an arbor in the Colonial garden. Usually, when it stood in the centre of the garden, it had a circular top and was covered with grape-vines or else adorned with roses. From this arbor radiated equidistant paths; very often each was spanned by an arch covered with roses. Another very prevalent form of arbor, and at the same time one of the simplest and best, was the "arch-arbor," or "bower." This was of two arches, or a series of arches, which spanned a path. Sometimes the top was roofed to exclude the rain, sometimes top and sides were latticed, or, if a more open arbor was desired instead of the lattice, lengthwise strips, set about a foot and a half or two feet apart, connected the arches and supported the vines. Inside, a wide, low seat ran along the sides. In one southern garden a wide, low arbor arches the path from the rear door to the kitchen-garden; the path is of brick, and in the flower-beds on each side of it, half-shaded by the arbor, German irises are growing contentedly. Grape-vines or roses were the vines in commonest use.

Arches, whether in an arbor or out, were very frequently seen in the older gardens. They were always strongly made, of good proportions, and on simple lines. At the head of steps or over a gateway was a favorite position for an arch. Some-

times four arches, set at equal distances from the centre, formed the central feature of the garden. Over an arch roses were usually grown.

Sun-dials were present in the old gardens, but by no means inevitable. The chief point to be observed in placing them is the obvious one of their being in the sun, and being where one may easily look at them. A good place for a sun-dial is at the convergence of several paths, or—if there is some other central feature—at the end of a path.

The Planting

In the first place, if the traditions be at all correct, our great-grandmothers seem not to have been troubled in the least by our nervous anxiety about the color schemes—apparently the garden didn't have any. Nor did they stand by, trowel in one hand and little plants of ageratum in the other, ready to pull up hyacinths or tulips the second they stopped blooming and insert a substitute. With the comfortable greenery of the borders of box or the flowering borders of sweet-william or grass pink, it was no very dreadful occurrence if the centres of the beds did stop blooming for a minute. There was always something to watch for in the garden—a leisurely, continuous performance was kept up, as in all gardens that are loved and lived in, but it was not the lightning-change of a moving-picture show.

Also the vegetable-garden was not held a thing which must blush unseen. It was frankly intermixed with the flowers. In a delightful old garden in Morristown the currant-bushes alternate with the clumps of irises; and on one side apple-trees border the garden.

Quite as important as what to plant in an old-fashioned garden is what not to plant. First to avoid are these: highly

colored maples, variegated evergreens, trees such as the weeping mulberry (*Catalpa Bungeii*), Crimson Rambler roses, golden-glow, *Hydrangea paniculata grandiflora*, and cannas. These would spoil the atmosphere of an old-fashioned garden as conclusively as a gas-range would spoil the effect of a Colonial kitchen.

Less belligerent, but still quite unsuitable if one is to make a sure-enough old-fashioned garden, are the following, which, although present in the earlier gardens, were there in a form so modest that the modern representatives of the family would hardly be known for the same plants: China asters, gladioli, nasturtiums, pansies, *phlox paniculata*, sweet peas.

Shrubs and Roses in Old Gardens

Shrubs did not figure so conspicuously in the older gardening as they do to-day. They were considered as objects of art introduced into a garden with some care and circumstance. Most important were these:

Barberry (*Berberis vulgaris*). The common barberry. Not *B. Thunbergii*.

Box.

Cornelian cherry (*Cornus mas*).

Bridal-wreath (*Spiræa prunifolia*). (The newer *Spiræa van Houttei* sometimes figures as "bridal-wreath," but is, as St. Paul said of science, "falsely so-called.")

Sweet shrub, Carolina allspice (*Calycanthus floridus*).

Rose of Sharon—althea (*Hibiscus Syriacus*). The single-flowering kinds.

Syringa, mock-orange (*Philadelphus coronarius*).

Snowball. *Viburnum opulus sterilis* is the variety. Don't use the Japanese *V. plicatum*, which is of later origin.

Lilacs. Get the common lilac—*Syringa vulgaris*—and the white, *S. vulgaris alba*.

There were plenty of roses in the older gardens, and rose-growing then was a simpler matter, for gardens and gardeners

were apparently unvexed by the insects and diseases that try the souls of modern rose-growers. Among the older roses that are still to be had are these:

Cabbage-rose (*Rosa centifolia*).
Cinnamon rose.
Common China rose, or monthly rose.
Sweetbrier, or eglantine (*Rosa rubiginosa*). The single-flowering form is the one to get.
Scotch rose (*Rosa spinosissima*).
York and Lancaster.
Damask rose.
Yellow roses were the Austrian yellow, the Persian yellow, or yellow-wreath rose, and the yellow Scotch rose.
White rose (*Rosa alba*).
Maiden's-blush, or blush-rose.
Common moss-rose.

Perennials and Annuals to Choose

Columbine. The common variety.
Carnation, or clove-pink (*Dianthus caryophyllus*). This is the outdoor carnation commonly grown in England and, although rarely seen here, easy enough to secure.
Forget-me-not (*Myosotis palustris*).
Hollyhocks. Both single and double hollyhocks can be used in white, rose, and dark red.
Oriental poppy. Get the blood-red sort with the black centre.
Monk's-hood. The dark-blue color is the one to have.
Peonies. Old varieties which may still be had are *rubra flore plena*, *rosea flore plena*, and *rosea superba*.
Polyanthus (*Primula polyanthus*). The cheaper strains are nearer to the old polyanthus.
Iris.
Primrose (*Primula vulgaris*). This is the English primrose.
Violets (*Viola odorata*). Used as an edging in the gardens.
Horned pansy (*Viola cornuta*). The Colonial form is a pale-blue flower.

The following are among those annuals—or perennials which may be treated as annuals—which may be had to-day and are still fairly true to their old form:

Amaranth (*Gomphrena*). Once popular for winter bouquets.
Annual chrysanthemums (*C. coronarium*).
Bluebells (*Campanula rotundifolia*).
Candytuft, both the rocket and the colored candytuft.

Catchfly (*Silene pendula*).

Double buttercup (*Trollius Europeus*).

Four-o'clock (*Mirabilis Jalapa*).

Fringed pink (*Dianthus superba*).

Giant reed (*Arundo donax*).

Flora's paint-brush (*Cacalia coccinea*).

Love-in-a-mist (*Nigella Damascena*).

Love-lies-bleeding (*Amaranthus caudatus*).

London pride (*Lychnis Chalcedonica*).

Marigolds, both French and African.

Mignonette (*Reseda odorata*).

Mourning-bride (*Salpiglossis*).

Perennial flax.

Scotch or pheasant's-eye pink.

Peach-leaved bellflower (*Campanula persicifolia*).

Sweet alyssum.

Sweet sultan (*Centaurea moschata*). The yellow variety, *C. suaveolens*, was most popular.

Veronica.

Valerian, common.

Jacob's-ladder.

Rose of heaven (*Agrostemma cœli-rosa*) and rose-campion (*A. coronaria*).

Suggestions for Biennials, Bulbs, and the Herb-Bed

Snapdragon, English daisy (*Bellis perennis*). Much used for borders.

Canterbury-bells.

Sweet-william, the single, fringed variety.

French honeysuckle.

The following list of bulbs will be good to work from:

Christmas rose (*Helleborus niger*).

Crown imperial (*Fritillaria imperialis*).

Crocus. The common crocus. Also *Crocus Mœsiacus* and the cloth-of-gold (*C. Susianus*).

Grape-hyacinth (*Muscari botryoides*).

Daffodils, the smaller-flowering daffodils.

Hyacinths, the more inexpensive sorts.

Iris. Spanish and English iris.

Narcissus. The poets' narcissus, not poetaz varieties.

Jonquil.

Ranunculus (*Ranunculus Asiaticus*). The red variety.

Scilla, or squill (*Scilla Siberica*).

Snowdrops, the common snowdrop, not the enlarged sorts.

Tulips (*Tulipa suaveolens*) and the common tulip (*T. Gesneriana*). Round-petalled forms they did not have, but almost everything else, having passed through the tulip craze. Darwins and cottage tulips, although not among those present in the older gardens, would not violate their spirit.

Madonna lily.

The following seeds and roots may be obtained for use in the herb-garden:

Hardy Annuals.—(To be sown outdoors as soon as danger from frost is past.) Anise, borage, caraway, coriander, dill, pot-marigold, marjoram, saffron, summer savory.

Hardy Perennials.—(Obtain a root, or sow for next year's plants.) Balm, catnip, horehound, hyssop, lavender, pennyroyal, pot-marjoram, rosemary, rue, sage, winter avory, tansy, thyme, mint.

Sweet basil is a tender annual and must not be sown in the open until the weather is settled.

XVI

HOW TO PRUNE YOUR SHRUBS

When gardening begins most of us feel that we are not performing our full duty by our shrubs unless we "do something" to them. If a man is brought in for a few days of garden work, the shrubs are usually delivered over to his mercies, and it is fairly certain that he will "fix them up" in a summary fashion. It makes no difference whether they are spring or summer or autumn flowering, whether they are valued for foliage or flowers or berries: all are treated alike to the simple process of beheading, like corn-stalks fed into a chopping-machine.

But shrubs are not alike, and therefore should not have like treatment. The usual effect of beheading is that numbers of shoots hasten to take the place of the ruined top, and the shrub becomes more than ever choked with needless branches. And if the shrubs are spring-flowering ones, their beauty and gracefulness at blossom-time is completely wrecked. Until after they are done blooming no one should be allowed to cut off the heads of the following shrubs:

Corchorus.
Deutzia.
Flowering Almond.
Forsythia.
Japanese Quince.
Jasminum nudiflorum.
Lilacs.
Snowball.
Syringa.
Upright Honeysuckle (early-flowering.
Spiræa prunifolia (Bridal-Wreath).
Spiræa Thunbergii.
Spiræa van Houttei.
Weigelia.
Wistaria.

The Spring Pruning

But there is pruning, and plenty of it, that can be done in early spring. First, have good tools: a pair of sharp pruning-shears, a thin little pruning-saw, and some paint or grafting-wax or tar to cover the larger cuts. The cut should always be made just above an "eye," or bud. The last "eye" left should be an outside one. The reason for this is that a plant always sends out a branch from the last "eye," and it should be encouraged to branch out, not in, keeping the branches outside, where they can have light and air. Any branches broken during the winter should be cut smoothly close down to the next outward branch.

When removing a branch cut closely (see illustration). Never leave a "stub"; this causes decay and affords an attractive lodging-place for insects. Any cut larger than half an inch should be painted or tarred over. When you are not sure how to prune a plant leave it alone. The plant will fare far better.

Shrubs of Drooping Habit.—Such shrubs as *Deutzia gracilis, Spiræa van Houttei, Forsythia suspensa,* should be pruned as in the illustration. All upright shoots which detract from the character of the plant should be cut off. The dark lines show branches to be retained.

The dark lines show branches to be retained

Newly Planted Shrubs and Trees.—Irrespective of their seasons of bloom, these always benefit from being cut back one-third or one-half of last year's growth. Transplanting inevitably reduces the roots, and,

unless the top is cut back to correspond, the roots have more to do than they can quite manage, and the plant is likely to be exhausted. Autumn-planted trees and shrubs should be cut back in spring.

Shrubs You Can Prune in Early Spring

Althæa, or Rose of Sharon.—This shrub usually has its figure completely spoiled by a yearly beheading. Thin it. Don't cut off the top. Or, if it is so tall that some cutting is necessary, prune in a bold and resolute fashion as shown in the hydrangea diagram (p. 124). Branches always start just below the cut, therefore cut so that it will branch out low instead of starting branches five feet from the ground.

Clematis Paniculata should be cut back in spring, but only enough to keep the vine where you want it.

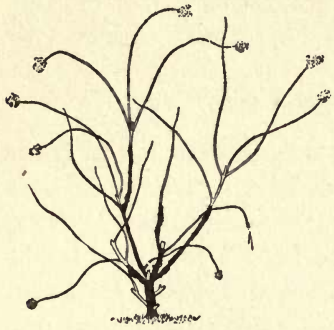
Barberries.—If grown as a hedge, *Berberis Thunbergii* should have spring pruning, but it needs very slight pruning—merely the removal of an occasional branch. The common barberry, *Berberis vulgaris*, may need a little thinning, but it is naturally more graceful than you can make it by pruning-shears. Best let it alone.

Spiræas.—Summer-flowering spiræas, such as *S. Bumalda* and the little *S. Anthony Waterer*, should be cut back rather closely in early spring, to make them bushy.

Dogwood.—Red-twigged dogwood and other dogwoods grown for the beauty of their stems are usually allowed to spread and make a thicket. They should be cut down to the ground, for it is the young growths that have the vivid winter color.

Hydrangea Paniculata Grandiflora.—This shrub is apt to grow ungainly with years unless given a rather drastic cutting

back each spring. It flowers on the new growth, and the more cutting back the more new growth. Don't leave stubs.



Pruning for *Hydrangea Paniculata.*

Evergreen Hedges.—These should be trimmed in early April before growth begins and at no other time. Evergreens need practically no pruning.

Privet.—Newly planted hedges of privet should be cut back to within six inches of the ground. This seems discouraging, but an essential excellence of a hedge is that it should be well furnished at the base, and this close cutting back is the only way to secure this.

Rhododendrons and Kalmias should have the last year's seed-pods removed if they are still on. This ought to have been done after blooming. No other pruning is necessary.

Bush Honeysuckles, Tatarica, Morrowii, and other August-fruiting sorts may need a little thinning, but don't give them much.

Tamarix.—Cut out ungainly branches. If carefully pruned in its youth for symmetry, tamarisks need little or no care in middle life.

Azaleas.—Watch the named varieties of azaleas for suckers, and if you see them take them off.

Lilacs.—Keep suckers out of your lilacs, but otherwise don't prune in spring.

Lilac in fairly good condition. Cut, leaving dark branches.

Making Old Shrubs Young

Sometimes through neglect a shrub becomes choked with dead branches and suckers so that it is a pathetic object in winter and blooms but faintly at its appointed time. In this case the only thing possible is to cut it down, leaving only four or five of the most promising sucker-like shoots. Cut out the old branches, almost down to the soil, until you reach sound wood. Paint the cuts. Cut back the young shoots left and they will quit their lank, sucker-like habit, branch out and make the bush into a creditable shrub. This treatment is shown in the illustration.

Shrub crowded with ingrowing branches.

Where the shrub or small tree is in fairly sound condition it is enough to cut out interfering branches, suckers, dead wood, and those branches that spoil the natural outline by growing inward or at cross-purposes. Sometimes, to make it symmetrical, the top should be reduced, but don't cut it off squarely. Make the cuts just above an outward branch.

Then (since the new growth pushes out from the "eye" or branch just below the cut), if terminal "eye" be on the outside, the shrub will branch outward, increasing the flowering surface. Cutting so that the shrub branched inward was one cause of the troubles of the unfortunate forsythia illustrated above. It should be cut to the dark branches.

The Rest-Cure for Shrubs

Winter-Killed Shrubs.—When shrubs have been apparently injured by the winter, scrape the bark slightly with thumb

and finger nail, and if it shows green underneath, the plant is alive, no matter how dead it looks, but it should be cut back "hard." The reason for this is not far to seek: the shrub is exhausted—has become anæmic, if one may use that expression of a plant—and the less top the less work the roots have to perform. Therefore cut it back, mulch heavily with manure, and it will come back to health and usefulness much more quickly than if allowed to blossom the approaching season.

Treatment of Invalid Shrubs.—Shrubs that are suffering from "general debility" should be treated in the same manner and cut back hard. Their illness may be due to late planting the previous year and not having been pruned when planted, so that the unfortunate shrub had to try to blossom as usual though struggling for its mere existence. The only remedy in such a case is cutting back and giving the plant a kind of "rest-cure."

How to Prune Roses

Most important of the early-spring pruning is that of the roses. In the South the pruning of roses is done in the winter-time—usually in January; in the North it should be done before the second week in March—before the sap begins to run. In fact, if at that time your roses are not pruned it is better to let them alone for another year.

First cut out every dead branch. To make sure that the branch is dead scrape the bark slightly with your thumb-nail; if a greenish tinge shows underneath it is alive, however appearances are against it. Always cut off a branch close to the stem, even if you have to push back the earth to accomplish this. When stumps of dead branches are left—the usual practice—they make most attractive places for the board and lodging of insects. Make a clean cut, don't tear the bark

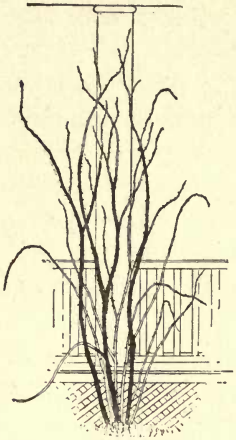
or split it down—a clean cut heals easily. Rub a little fresh earth on the cut.

Next come the "suckers." Many of the finest roses and most named varieties of azaleas and lilacs are grafted or budded plants, that is, the root of the plant—the "stock"—is of a sturdy, common sort; the top of another, rarer sort. Even on the stem of a very old plant it is easy to see where the budding has been done; catalogues often give a diagram showing this. Anything that grows up from below the bud is a "sucker" and should be promptly cut off—it saps the vitality of the plant and is not the sort you wanted. Although budded roses are more vigorous and long-lived than those grown on their own roots—that is, with root and top both of the fine sort—most nurserymen prefer to sell "own root" roses to amateurs for the uncomplimentary reason that the buyer rarely knows a sucker when he sees it, and that, if he does, he will not be likely to keep them cut out, and then he will complain, "I bought such a variety of rose, and now look at this thing." It is in order to discourage "suckers" that folk are urged to plant budded roses with the bud three inches below the soil.

H. P. rose pruned for quality roses (cut out all except dark branches)

Rose-bush pruned for abundant roses

Dead wood and "suckers" out, then comes thinning. If you care more to have large rose-bushes than to grow fine roses, then much thinning is unnecessary—simply cut out interfering branches. But if



Climbing rose. Leave only dark branches.

you wish very beautiful roses, then thin the plants, leaving only five or six stems on a hybrid perpetual rose, three or four stems on tea-roses.

Finally, shorten the stems, cutting back the hybrid perpetuals to five or six "eyes" from the ground, while the "teas" should be left with three or four. The last "eye" should always be on the outside, that the rose may branch out, not in. Gather and burn the pieces—unless you wish to make cuttings. Then spray your roses with the lime-sulphur wash to prevent scale.

For roses of fine quality prune as on page 127. All of the branches which are not black are taken off. Make a smooth, clean cut, just above an outside "eye." This is the way to prune Crimson Rambler, Jacqueminot, Kaiserin, American Beauty, and other strong growers.

For rose-bushes with plenty of flowers, but not of extra size, prune as in Figure 5, cutting off about half of the last year's growth and, of course, removing suckers and dead wood.

Cut back a newly planted rose. The dotted line shows the depth of planting.

Teas and hybrid teas are best not pruned until they begin to show signs of life and the bark becomes greener. In the North this will be in April. All dead or dying wood should be removed then, even if it seems that such drastic pruning would leave nothing to the unfortunate rose-bush with which to begin life again.

Rugosa roses, cabbage-roses, Bourbon roses need very little pruning. Remove weak growth and shorten the shoots a few inches.

With climbing roses, such as Crimson Rambler, Dawson, Carmine Pillar, Baltimore Belle, and others, cut out dead wood, prune, and keep within the bounds you wish. One-fifth to one-third of the previous year's growth is all which needs to come off. Old wood that is past flowering should be cut out. The dark branches in illustration (p. 128) show how much should be left.

Persian yellow, Harison's yellow, and Austrian brier-roses should be treated as spring-flowering shrubs, and not pruned until after they have flowered.

Newly planted roses should be cut back to five or six "eyes," (see p. 128). If any of the roots have been broken these should be cut smoothly.

Selection of Shrubs

When one understands the care of shrubs they become more and more tempting; yet on a small place the number is necessarily limited and the selection restricted. Shrubs, whether roses or rhododendrons, are "on deck" all the time and always evident, so their year-round aspect has to be considered. The following table may simplify the business of selection and aid the gardener in having shrub beauty in his garden either the year round or exactly when he wants it.

For a more complete chart of shrubs see p. 163.

HOW TO GET COLOR ALL THE YEAR ROUND IN YOUR GARDEN

HERE ARE SHRUBS WHICH WILL MAINTAIN SOMETHING LIKE A "CONTINUOUS PERFORMANCE" IN THE GARDEN

TIME OF BLOOMING	NAME	COLOR	HEIGHT	SOIL	GENERAL REMARKS
MARCH	Naked-flowering Jessamine (*Jasminum nudiflorum*)..	Yellow	3½ feet	Any soil	A half-trailing shrub. May be trained against walls.
	Hall's Magnolia (*Magnolia stellata*).....	White	8 feet	Any soil	Ray-like flowers of exceeding delicacy make the shrub a mass of dazzling whiteness.
APRIL	*Forsythia viridissima*.....	Yellow	6–10 feet	Any soil	*F. Fortunii, and F. suspensa* with drooping stems, follow.
	Spiræa Thunbergii.....	White	4–6 feet	Any soil	
	Japanese Quince (*Pyrus Japonica*).....	Scarlet	3–6 feet	Any soil	Bronze foliage in autumn. Varieties in white, rose, salmon.
MAY	*Daphne cneorum*.....	Rose	1½ feet	Light soil	Evergreen, blooms again in September. Very fragrant.
	Exochorda.....	White	6–8 feet		
	Lilacs (*Syringa*).....	Lavender, various	6–10 feet	Rich soil	Marie Legraye, white; Charles X, purple; *S. hyacinthæflora*, pale blue. The common lilac, *S. vulgaris*, is always charming.
	Azaleas, *Mollis* and Ghent varieties.....	Orange, various	2–8 feet	Good soil, no limestone, partial shade	Very brilliant. *Mollis* blooms a trifle earlier. Many varieties. Good in moist soil.
JUNE	Rhododendrons (Hybrid)..	White, purple, crimson, various	4–10 feet	Good soil, no limestone, partial shade	Be very careful to avoid clashing colors. *Album grandiflorum*, white; Lincoln, deep rose; Mrs. Milner, crimson; *purpureum crispum*, purple—hardy varieties.
JULY	*Magnolia parviflora*.....	White	8 feet	Good soil	White petals with crimson centre, soft, rich foliage
	Deutzia gracilis.....	White	4 feet	Any good soil	*D. scabra* blooms some weeks later.
	Rosa rugosa.....	Rose-crimson	4–6 feet	Any soil	Good for hedges. Scarlet fruit in winter.
	Spiræa Anthony Waterer...	Dull crimson	2 feet	Any soil	Remove dead blossoms.
	Saint-John's-Wort (*Hypericum Kalmianum*)	Yellow	3–4 feet	Any soil	Blooms throughout August. *H. Moserianum* larger-flowered.

AUGUST	Pepper-Bush (*Clethra alnifolia*).....	White	3–5 feet	Any soil or condition	
	Rose of Sharon (*Hibiscus*).	White, pink	5–8 feet	Any soil or condition	Avoid magenta tints. *Jeanne d'Arc, Leopoldii, totus albus* are good varieties.
	Hydrangea hortensis.....	Variable blue-pink	5–8 feet	Moist soil, partial shade	*H. hortensis* not hardy north of New York. *H. Otaksa* and Thomas Hogg are good sorts.
	Lonicera Morrowii.....	Crimson fruit	8–10 feet	Any soil	Holds its berries well into autumn.
SEPTEMBER	Blue Spiræa (*Caryopteris mastacanthus*)	Blue	1–5 feet	Sun, well-drained soil	In North dies down in winter. Its color is charming.
	Hydrangea paniculata grandiflora.....	White, rose	4–8 feet	moist soil, half shade	Will grow easily. Noticeable from August until November.
	Groundsel (*Baccharis halimifolia*)...	White	3–9 feet	Any soil, poor soil	Fluffy white pappus, suggesting seeding milkweed until late November or December.
OCTOBER	*Cornus candidissima*.....	Ivory berries	6 feet	Any soil	Berries charming from August until birds finish them.
	Cornus Amomum.....	White to dark-blue fruit	6–10 feet	Any soil	Handsome shrub. Blooms in July. Purple stems in winter.
	Euonymus Sieboldianus....	Coral seed-vessels	6–8 feet	Any good soil	Very decorative and very little planted.
	High-bush Cranberry (*Viburnum opulus*).....	Crimson	6–8 feet	Any good soil	Most viburnums are brilliant in autumn, especially *V. cassinoides* and *V. dentatum*.
		WINTER COLOR			
NOVEMBER AND DECEMBER	Japanese Privet (*Ligustrum ibota*).....	Black fruit	6–10 feet	Any soil, even poor soil	Good hedge-plant, though if clipped for a hedge it will not fruit.
	Andromeda floribunda.....	White flower-buds	3–4 feet	Good soil	Buds like tiny sprays of lily-of-the-valley. Blossoms in May.
	Berberis Thunbergii.....	Scarlet fruit	3–5 feet	Any soil	Excellent low hedge. Brilliant foliage.
	Snowberry, Wax-Plant (*Symphoricarpus racemosus*).	White fruit	3–5 feet	Any soil or condition	Berries last almost the entire winter.
JANUARY AND FEBRUARY	Indian Currant (*Symphoricarpus vulgaris*)	Claret-colored	2–4 feet	Any soil or condition	Berries last almost the entire winter.
	Red-stemmed Dogwood (*Cornus alba*).....	Crimson stems	4–6 feet	Any soil, moist	Color more vivid in late February. *C. stolonifera aurea* has stems of golden yellow.
	Corchorus (*Kerria Japonica*).....	Pale-green	3–6 feet	Any soil, sun	Flowers of buttercup-yellow in early May.

XVII

HOW TO SET OUT SHRUBS

Any one who likes to have his place look well and has not time to compass the constant watchfulness which flower-beds need had best "get him to a nursery" and invest in shrubs. Then he can view with serene philosophy the incursions of stray dogs or cats, or even hens, knowing that Rugosa roses and barberry-bushes are competent to take care of themselves, that chickens can scratch about his bushes and accomplish nothing but good.

With shrubs one hides the clothes-line from the street; with shrubs one has a polite but effective barrier between one's land and one's neighbor's line of vision; with shrubs one makes a house seem comfortably settled on its site, which before was but perched uneasily; with shrubs one banishes from a high piazza the bald, strained look as of a forehead from which the hair has receded.

The following are some of the best shrubs; they are radiantly described in catalogues.

Tall-growing shrubs: Althea or rose of Sharon (*Jeanne d'Arc* and *rosea*), dogwood (*Cornus Amomum* and *C. candidissima*), barberry (*B. vulgaris*), forsythia, Japanese snowball, lilacs, syringa, viburnums.

Shrubs of medium height: Japanese quince, laurel, Rugosa roses, spiræas (*S. prunifolia*, *S. Thunbergii*, *S. van Houttei*).

Low-growing shrubs: *Berberis Thunbergii*, daphne, Deutzias (*D. gracilis* and *D. parviflora*, flowering almond, rhodotypus and *Azalea mollis*.

Where to plant your shrubs seems, until you try it, the simplest of matters. One is so often told to "imitate Nature," to plant with a "pleasing irregularity," to group shrubs "loosely and naturally," to "create a little landscape picture"—which is all very well, but "imitating Nature" is by no means so easy as it sounds. It is the most difficult form of gardening, and few amateurs hit it exactly right the first time. The typical arrangements shown in the illustrations are diagrammatic rather than decorative.

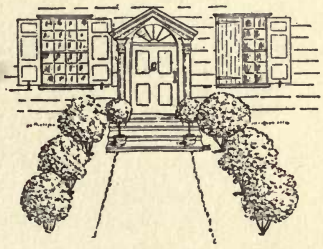


Fig. 1. Approach to old-fashioned house

First consider what kind of house you have. Suppose it is an old-fashioned house, the door squarely in the middle, equal numbers of windows on each side. Then let the personality of the house have some weight—don't make an approach of winding paths, or make irregular groups of shrubbery—such coquetries are an offense to its dignity. A straight row of shrubs each side of the path would look well—box, if you can afford it or are blessed with it, or the old-fashioned bridal-wreath, or *Spiræa van Houttei*. Edging the path you could have a bulb-border followed by *Phlox subulata* or little English daisies. On each side of the shrubs could be regular flower-beds, hollyhocks and vines against the house. Such planting is fairly safe. (Fig. 1.)

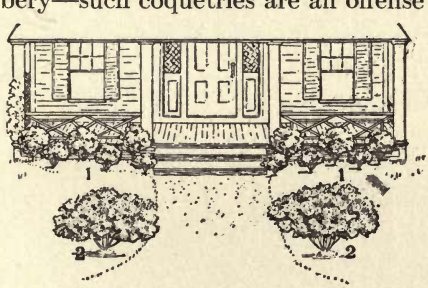


Fig. 2. Symmetrical planting

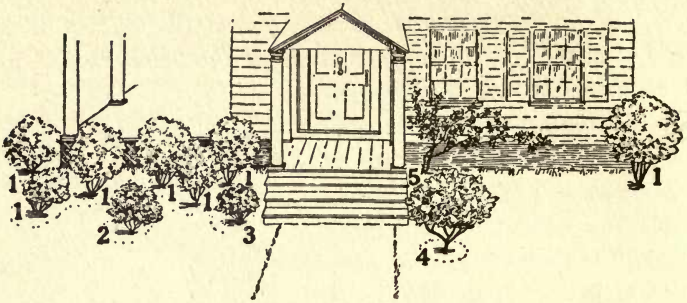


FIG. 3. Diagram of planting when approach is not balanced

Suppose your house is in the suburbs, fairly near the street, a more modern type, but still with a door in the middle—path leading up to steps at the centre of the porch. Then for the front a symmetrical arrangement is best also (Fig. 2). If troubled by people cutting across the corner of your path, plant a bush of *Berberis Thunbergii* or *Rosa rugosa* (2) on each side to guard the corner, three feet in from the path.

If the porch is low, not more than two feet and a half from the ground, use *Berberis Thunbergii* for the double row of shrubs each side of the steps. If you wish something to look well the year around and can afford it, plant in the same manner the yew *Taxus repandens*, or that very lovely and very little planted evergreen *Andromeda floribunda*. In midwinter this

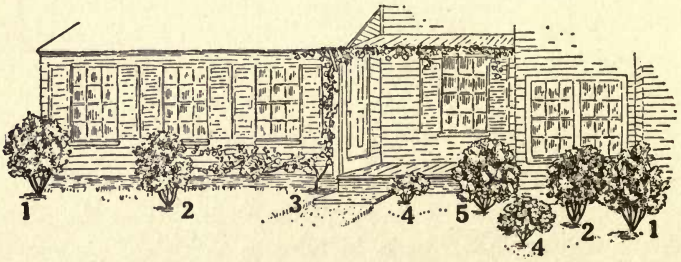


FIG. 4. Planting beside a kitchen door

has beautiful foliage of a green, summer luxuriance, and from November until it blooms in May shows buds like clusters of unopened lily-of-the-valley. In the summer, porch-boxes filled with Lobb's nasturtiums would give gayety enough. But if your porch is high, say, four feet from the ground, then taller-growing shrubs would be necessary. In this case *Spiræa van Houttei* would be the best choice, or for a north side rhododendrons.

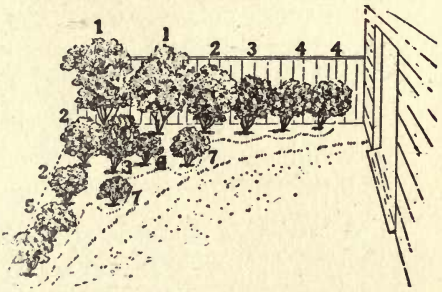


FIG. 5. Planting an empty corner

Suppose your house is irregular—then the shrub-planting must follow the type of house as the Constitution follows the flag. Here (Fig. 3) *Spiræa van Houttei* cuts off a porch from observation, and a single plant of *Hydrangea paniculata* is at the side of the steps. In place of the hydrangea, a magnolia could be planted here—*Soulangeana* or *stellata;* or, if it is on the north side, a single rhododendron. Between the woodbine and the spiræa could go perennials. .

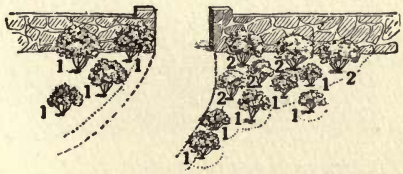


FIG. 6. Shrubs at a driveway entrance

When a few shrubs are placed about a kitchen door or beside an "L" such as one often sees in New England, they should be fairly close to the house. The shrubs suggested here are: (1) lilac, (2) bush honeysuckle, (3) grape-vine, (4) flowering almond, (5) syringa. With these one need not fear mischief wrought by hens. (See Fig. 4, p. 134).

Aside from the planting directly beside a house, there is many a situation in which shrubs take away the bareness.

Here follows a suggestion for an empty corner by a stable or a garage (Fig. 5, p. 135). The shrubs are: (1) flowering peach, (2) rose of Sharon, (3) syringa, (4) snowball, (5) privet, (6) kerria, (7) Japanese quince. These will give something like a continuous performance and, once planted, give little trouble.

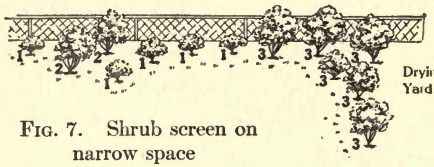


FIG. 7. Shrub screen on narrow space

A very simple grouping of shrubs at a driveway entrance improves it. Fig. 6, p. 135, shows Rugosa roses (1) and *Berberis vulgaris* (2). Instead of the four Rugosa roses at the left side, a single evergreen could be planted—Oriental fir or hemlock.

When shrubs are grouped at the side of a rather narrow lot a space perhaps only eight feet by twenty, there is little choice in arrangement. One has to cut off the drying-ground at the rear and to interpose a slight barrier between one's yard and one's neighbor. (1) Azalea, (2) barberry, (3) evergreen thorn are used. In front of the shrubs perennials could be "worked in," phlox, foxgloves and the like, or annuals. Common hawthorn or flowering dogwood could be used instead of the evergreen thorn (Fig. 7).

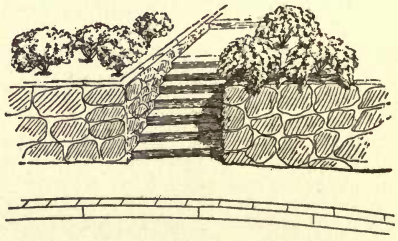


FIG. 8. Shrubs at path entrance

Without a few shrubs the entrance has a bare, unfinished look. Here (Fig. 8) is a first-aid treatment at a path where grading has been done. Besides the shrubs, bittersweet (*Celastrus scandens*)

could be planted, or Virginia creeper. In fact, the whole of a wall like this would be delightful if planted with shrubs of a rather "hanging-over" habit—*Forsythia suspensa*, *Lespedeza* and *Spiræa van Houttei*. Of course, an arch over the entrance and a hedge on either side would be a more satisfying treatment.

There are a few shrubs and ornamental trees which should be planted warily. Among them are the following: Red-leaved Japanese maples, variegated weigelia, *Catalpa Bungeii*, weeping mulberry, and the Colorado blue spruce. I do not mean that there is anything wrong with the plants themselves —they are interesting horticultural novelties; but the trouble is that one can rarely make them fit. It is like strikingly unusual clothes and trying colors: they can be worn successfully by some women with certain complexions and in exactly the right combinations, but they are by no means easy to manage. Therefore, it is safer to make one's place look homelike first and introduce novelties afterward; then one lays up for himself no cause for after-repentance.

XVIII

HOW TO SET OUT PLANTS

Arrangement of Plants in Typical Border-Beds

The business of setting out plants in the garden-beds is not occult, but it requires a little skill, for the blooming must be fairly well distributed so that those plants whose blossoming time has not yet arrived may act as accompaniment or background to those whose turn it is. That the taller sorts should be at the back, the lower ones in front, is obvious. They must also stand at a suitable distance from each other and yet be set with economy of space.

The following diagrams will give an idea of the placing of individual plants. If longer borders are desired the planting can be repeated in the same order. Except where noted, the planting is in groups of threes or fives, these being easier to manage than even numbers.

The chief point in setting plants in a garden-bed, aside from planting them properly, is to see that the bed appears well filled, that the blooming is fairly well distributed, and that no part of the bed looks bare. If this happens it is an easy matter to fill in with plants from the seed-bed or the reserve garden.

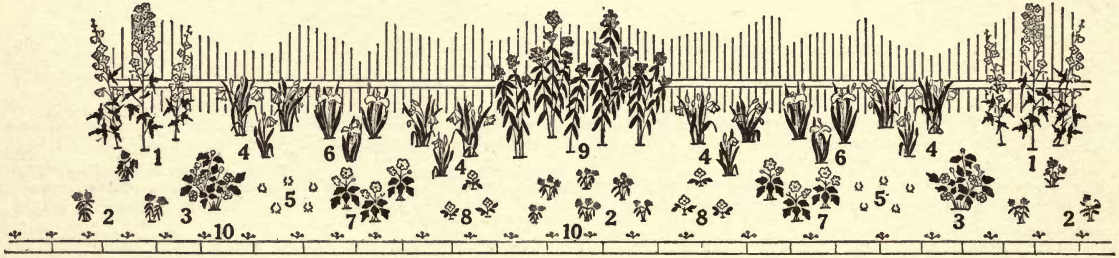
The diagrams which follow are arbitrary and are merely to give an idea how the thing is done.

Planting for a narrow border along the side of a house, space occupied being fifteen feet by three.

1. Row of Japanese Anemone, planted a foot and a half apart. 2. German Iris. 3. Yellow Day-Lily (*Hermerocallis Flava*). 4. Tulips and Chrysanthemums. 5. Speciosum Lilies. 6. Edging of *Scilla Sibirica* and Autumn Crocus, alternately, three inches apart. Plant the *Scilla* and Darwin Tulips in October.

This and the following diagrams show the arrangement of hardy perennials in places where it seems necessary to "plant something." The plants mentioned are among those least likely to disappoint the amateur gardener. Except where noted, all these plants may be set out (latitude of New York) in spring or autumn.

HOW TO SET OUT PLANTS. DIAGRAM I.

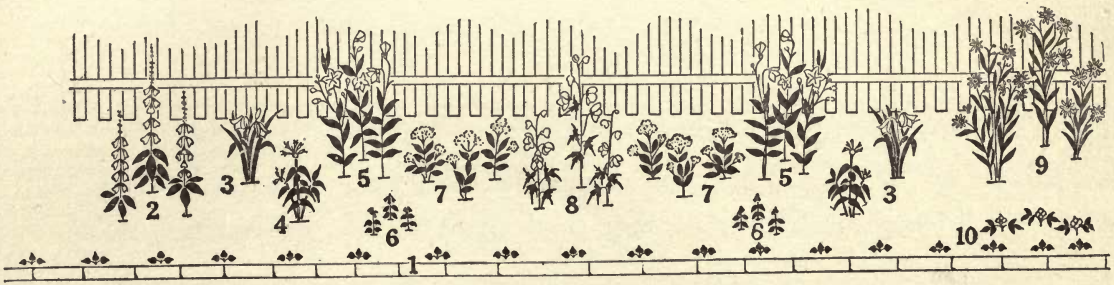


Planting for a hardy border on the sunny side of a back yard. It should bloom from May to November.

1. Larkspur. 2. Sweet-William. 3. Chrysanthemum. 4. Yellow Day-Lily. 5. Gladiolus—5 bulbs. 6. German Iris. 7. Japanese Anemone. 8. White Spike-flowered Speedwell (*Veronica spicata alba*). 9. Hardy Phlox—5 plants. 10. Edging of Dwarf Sweet Alyssum or Rock-Cress (*Arabia albida*).

Plant the Gladiolus bulbs about May 1, setting them three inches deep and six inches apart. If Sweet Alyssum is used as edging it should be sown at the same time. This border is twenty feet long and two feet wide. In a wider space Climbing Roses or Clematis could be grown on the fence.

HOW TO SET OUT PLANTS. DIAGRAM II.

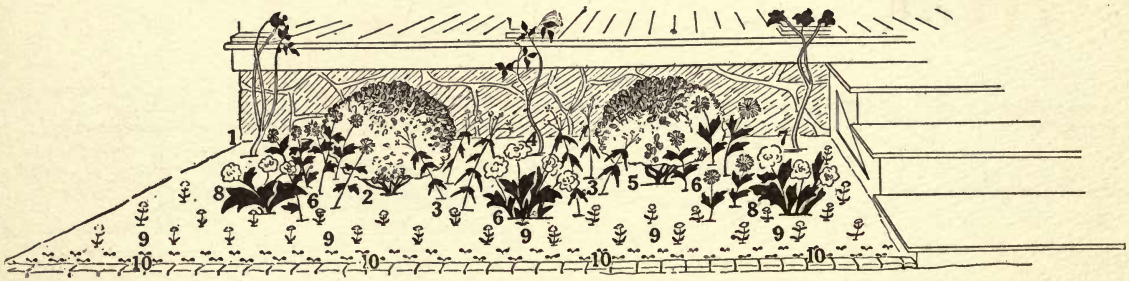


A hardy border for the shady side of a back yard.

1. Edging of Common Primroses or Violets—about 50 plants. 2. Foxgloves. 3. Day-Lily—1 plant. 4. Bee-Balm—1 plant. 5. Bell-flower. 6. Solomon's-Seal. 7. Showy Stonecrop (*Sedum spectabile*). 8. Monk's-Hood (*Aconitum autumnale*, variety *Fisheri*). 9. Short's Aster. 10. Myrtle (*Vinca minor*).

This border is planned for blooming from May until November. The plants are to fill a space two feet and a half by twenty. Forget-Me-Nots or Pansies could be planted in the spring for the summer's blooming in place of the Lily-of-the-Valley pips, which must be set out in November. Plant in threes except where noted.

HOW TO SET OUT PLANTS. Diagram III.

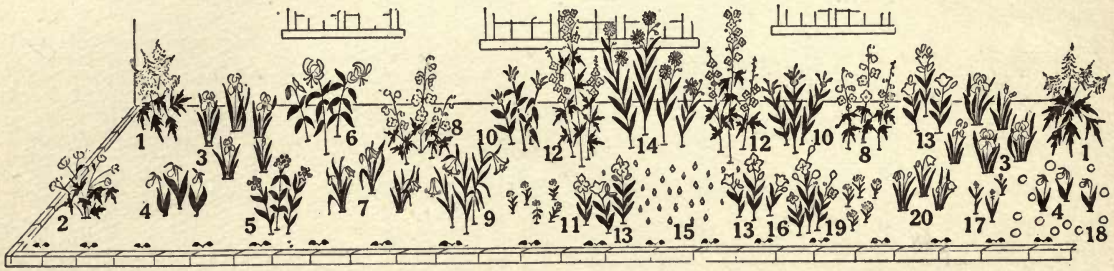


Planting along the front of a porch a hardy border from May until November.

1. Rose, "Dorothy Perkins." 2. White Rugosa Rose. 3. *Achillea ptarmica*, variety "The Pearl"—3 plants. 4. *Clematis paniculata*. 5. Pink Rugosa Rose—5 plants. 6. Hardy Chrysanthemums—5 plants. 7. Grape-Vine. 8. Peony. 9. Pale-Pink and White Zinnias. 10. Double row of Phlox, "Miss Lingard."

This fills a space twelve feet by three. Start the Zinnias in the seed-bed and set out about June 1, twelve inches apart. In October plant a border of Darwin Tulips, setting six inches deep so that next year annuals can be grown over them. Make the soil rich or the Roses will rob the perennials.

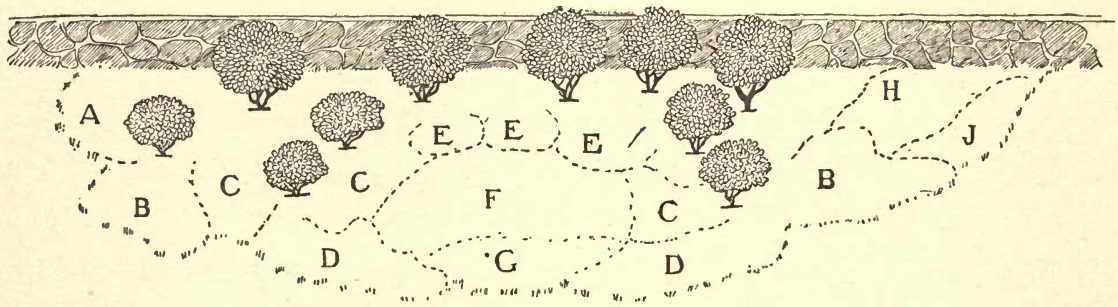
HOW TO SET OUT PLANTS. DIAGRAM IV.



Along the north side of the house, to bloom from May to November.

1. *Astilbe Japonica.* 2. Yellow Globeflower (*Trollius Asiaticus*). 3. Florentine Iris—5 plants. 4. Lady's-Slipper. 5. London-Pride. 6. American Turk's Cap Lily (*Lilium superbum*). 7. *Hermerocallis Thunbergii.* 8. Monk's-Hood. 9. *Lilium Brownii.* 10. Bee-Balm. 11. Evergreen Candytuft (*Iberis sempervirens*)—5 plants. 12. Hybrid Larkspur. 13. *Lilium elegans.* 14. Short's Aster. 15. Crocus—25 bulbs. 16. *Platycodon.* 17. Forget-Me-Not. 18. Darwin Tulips. 19. Tenor's Candytuft (*Iberis Tenoreana*)—5 plants. 20. Yellow Day-Lily. Plant in groups of threes, except where noted.

HOW TO SET OUT PLANTS. Diagram V.



How to work in perennials among shrubbery.

A. Japanese Anemone. B. *Lilium elegans*. C. White Foxglove—5 plants—and Foxglove. D. Japanese Speciosum Lilies—10 plants. E. *Astilbe Japonica*. F. Hardy Phlox, salmon-pink—10 plants. G. Phlox, "Miss Lingard"—5 plants. H. German Iris—5 plants. J. Japanese Iris.

This diagram is not an arbitrary arrangement at all, but merely gives an idea of how perennials may be tucked in, wherever there is space for them in front of irregularly grouped shrubs, to continue the blooming during the summer. Make the soil rich. Plant in groups of threes except where noted.

HOW TO SET OUT PLANTS. DIAGRAM VI.

XIX

COLD-FRAMES AND HOW TO MAKE THEM

Cold-Frames and Hotbeds

Cold-frames and hotbeds are at once a delight to the forehanded gardener and a means of grace to the belated one, for here one can repair one's last year's negligences and ignorances and sow for summer-blooming those perennials which might have been sown in the open of the year before—but weren't. And here northern gardeners, who find the season wofully short, can add cubits to the stature of their plants by starting in the frames those annuals which do not object to transplanting.

As far as external appearances go, hotbeds and cold-frames look precisely alike, but they differ in this: that in the hotbed bottom heat is provided by means of a pit dug underneath, some three feet deep, which is filled with fresh manure; to plants in a cold-frame this extra heat is not furnished. The cold-frame is simpler to make and simpler to manage. It can be so constructed that it folds like the tents of the Arabs, and is put out of sight when not in use. There are also small frames, which can be carried about and set over young plants that need a little encouragement.

Any one can make a cold-frame. Old window-sashes can be utilized, and absent panes replaced by oiled paper or waterproof muslin. One enthusiastic gardener borrows the storm-windows, which are taken down in late March, and brings them into service in the garden, where, as sash for cold-frames, they act as nurses for young plants before going into their

summer retirement. The regulation cold-frame—"frame," as gardeners call it—is six feet by twelve, and is covered by four six-by-three sash. The sash may be bought for three dollars and a half each, and the wooden supporting frames are bought to fit for one or two or three or four sash, or they may be made at home. Of course, if for sash one uses storm-windows or old window-sash the frames will not be of the regulation size, but must be made to fit the sash.

The essentials are that the frame be in a sheltered place, open to the sun, protected on the north and west; to get the greatest possible sunshine the glass should slope toward the south; this is managed by having the back of the frame fifteen inches above the ground, while the front is only twelve. The sash must rest evenly on the supporting frame, and the frame be well banked on the outside.

How to Take Care of a Cold-Frame

Like many other branches of garden craft, the managing of a cold-frame is extremely easy—when one has the hang of it. Ventilation is very important; give air by raising the sash and putting a block of wood between it and the frame. Cover warmly at night; for this old carpet or matting can be used—mats made of salt hay—while boards are laid on to keep the covering in place. Mats made for the purpose and shutters to lay over the frames can be bought for very little.

Sow the seed in boxes or flats and place these in the frames, or else sow the seed directly in the cold-frame, in which case make the soil fine and light, well enriched with sheep manure or other fertilizer; but it is unnecessary to have it worked for more than six inches in depth. For two or three days before planting keep the sash on to warm up the soil. Sow in narrow rows, cover very lightly, and water with a fine rose

spray. But when sowing seeds in a cold-frame do not completely fill your frames with the sowing; some space must be saved for the young plants which some weeks afterward will be ready for transplanting. When the seedlings are three inches high transplant to four inches apart; then they will make sturdy little plants for summer-blooming.

No one sends a baby out into all weathers just because at a certain calendar date spring is supposed to have come, and gardeners treat infant plants with the same care. First, it must be the warm middle of the day when the sash is removed; then, on mild days, it is kept off altogether; a little later and the plants are simply covered on very cold nights. When grown in boxes in the house the little plants are hardened off in the same fashion: the open window on mild days, then the boxes are set out on the porch or some other convenient place, and brought in only when the weather is threatening. This hardening off may seem a slight detail, but to the plants it is very necessary. Professional gardeners sometimes keep tender or uncertain plants in the frames for a year or more, so that they can watch them more conveniently until they are acclimated.

If cold-frames or hotbeds are not possible, then one of the best places for starting seeds is a sunny kitchen-window. Shallow wooden boxes, such as florists call "flats," are the most convenient for sowing seeds; two excellent "flats" can be made from an old soap-box, sawed lengthwise through the sides, and the cover nailed on to serve as a bottom for the second box. Bore a few holes in the bottom, put bits of crock over them, then an inch of screenings in the bottom for drainage, then fill the box with finely sifted soil. If possible, get this from a florist. In these boxes you can sow seeds usually sown in hotbeds or cold-frames. Celia Thaxter used even to start poppies in the house—flowers which always appear in

the gardener's lexicon as untransplantable—she sowed the seed in egg-shells and, later, after their short voyage to Appledore, set them in the ground, egg-shell and all, and they seemed none the worse for it.

Start These Perennials in the Hotbeds or Cold-Frames

The following are the most important of the perennials which, if started in March will bloom the first summer:

Harebells (*Campanula Carpatica* and *C. rotundifolia*), large-flowered tickseed (*Coreopsis grandiflora*), Oriental larkspur (*Delphinium formosum*), large-flowered larkspur (*D. grandiflorum*), garden-pink (*Dianthus plumarius*), toadflax (*Linaria Dalmatica*), forget-me-not, Iceland poppy, pansy. The pansies prefer partial shade; the larkspurs, pinks, Iceland poppy, full sun; while forget-me-nots, linaria, and coreopsis are not particular.

Among the annuals best started in the cold-frame are these: China aster, coreopsis, cosmos, Japanese pink, Drummond's phlox, Scabiosa, petunia, snapdragon, ten-week stock, verbena.

There is a tidy bit of pin-money awaiting some woman who has skill in the management of a cold-frame, and whose home is in a place which has a summer colony. She might use her cold-frames in starting seeds for absent gardeners. Many a woman who cannot get to her country place until June would be delighted to have thrifty young seedlings awaiting her coming in a neighbor's garden. Practically no capital would be necessary, and if only a few cents were charged for each seedling it would be exceedingly profitable.

Making a New Lawn

To renovate an old lawn, first rake thoroughly with an iron rake, fill any hollows with new soil, give the whole a top-

dressing of soil mixed with bone-meal and wood-ashes, then sow more grass seed. Nitrate of soda, applied to a lawn at the rate of five hundred pounds to an acre, is an excellent spring tonic for a worn-out lawn—this quantity should be applied in two or even three dressings instead of at one time. This is very rapid in its effect, and is excellent for forcing growth on worn spots.

Beauty may look as if it were skin-deep, but it isn't; and a good lawn is like a good complexion: it implies a sound physical condition underlying it. If you wish to have a good lawn don't go about it in a half-way fashion. The first necessity is a good, well-drained soil. With a clayey soil it is necessary to lay tiles at the depth of from two feet and a half to three feet. Plough deeply, manure heavily with well-rotted manure —cow manure is best; this must be harrowed in and raked smooth; then add three inches of good top-soil in which there is no manure (this insures safety from weeds), rake smooth and sow with grass seed, allowing two bushels and a half to three bushels to an acre. For this work choose a still, cloudy day; in the early morning or just before sundown is the best time. Rake lightly, unless you are an expert, and be careful to pull the rake one way. As to what seed, if any, tell a reliable seedsman the character of your soil, whether sandy or clayey, and he can fit the mixture to the conditions. On a new lawn let the grass grow slightly long before cutting. This is especially important if crocuses or other bulbs are planted in the grass, for it is during the few weeks that the foliage is maturing that next year's flowers are formed; therefore one should wait until the crocus and snowdrop leaves begin to yellow before allowing the lawn-mowers full sway.

XX

HOW TO SUCCEED WITH ANNUALS

People have a way of speaking of annuals as if they were the merest makeshifts in gardening, a kind of temporary filling for beds and flower borders, to be replaced by something better at the earliest possible moment. If one lives the year round in one place it is necessary to have other planting, but for the summer-home in the mountains or at the seashore or in the country, for the city back yard, and the home-made "roof-garden," annuals are invaluable.

In the garden world the hardy perennials are like those old families in a small community who can never see any reason whatever for going outside their native place and, if ever they do, must have the soil and climate precisely to their liking. Annuals, on the other hand, are perfect cosmopolitans, and the most daring of adventurers besides. Some are citizens of Europe, many are from Africa, South America, Mexico, Australia, or the East Indies. Some are tropical plants, belonging in their own country to stately and respected families of perennials, but none has the slightest objection to spending a summer with whoever cares to give it garden room. In fact, through their representatives one may have all the kingdoms of this world within the modest confines of a back-yard fence, and at a cost of about half a dollar, which is a cheering thought to any one whose means are not unlimited.

Annuals Not Often Planted but Easy to Grow

Here are a few of the annuals perfectly easy to grow, but which, for some reason or other, one rarely sees in gardens:

Clarkias.—These are among the many handsome Californians. They like a rather warm soil, but are easily grown and bloom profusely. *Clarkia elegans* bears long racemes of flowers rather like carnations. The colors vary from white to purple or salmon-pink. *Clarkia pulchella* is even more showy. Sow early in May in partial shade. Thin until the plants are six to twelve inches apart.

Eucharidiums are cousins of the Clarkias, lower-growing plants, only one foot high, with rose-purple flowers in great quantities. *E. grandiflorum* and *E. Breweri* are the best kinds.

Godetia (satinflower) is a very handsome annual, with wide-open flowers in delicate, lovely colors and petals of satiny texture. They are good for entire beds, for edging a border, for pots, for growing in shaded places, and bloom best in a poor, rather thin soil. Sow in May. Thin the plants until they stand a foot and a half apart—this is important. The best species are *grandiflora* and *amœna.* The best varieties are Rosamond, The Bride, Duchess of Albany, and Lady Albemarle. Godetias will bloom from June until October.

Phacelias are charming plants and rarely seen. Sow early and give the plants a rather cool, moist position. Best varieties *Parryi* and *Whitlavia,* the latter also known as *Whitlavia grandiflora.*

Annual Campanulas are a delight to any one who is unfamiliar with them. *C. macrostyla* has large violet flowers and makes a plant three feet high. *C. Loreyi* is a lovely little annual.

Gilias bloom in any situation; can be planted at any season; charming little plants—do best in a light soil. *G. tricolor* the best.

Collinsia.—Needs a sunny position and plenty of water.

Tulip Poppy (*Hunnemannia*).—The foliage resembles the California poppy's, but the flowers, which appear in late summer and autumn, are like yellow tulips. It remains in

bloom for six weeks, and, if cut, the flowers may be kept for ten days.

Butterfly-Flower (*Schizanthus*).—Interesting orchid-like flowers. Height, one foot to two, very free-blooming and of the easiest culture. Best varieties *Grahami, pinnatus, retusus Wisetonensis* the best for pot-culture. All are good for cutting and massing.

Annual Lupins.—These bloom in August from May sowings, and may be sown to fill the vacant places left after Oriental poppies and other early-flowering plants have done blooming; they are of rapid growth and bloom plentifully long after frost. The new *hybridus roseus* is one of the best varieties; *Hartwegii lutens* (yellow) and *mutabilis* (various colors) are the best sorts; the last makes a plant three feet in height. Lupins are excellent for cut flowers.

Annual Chrysanthemums.—These are altogether different things from the heavy-headed show-chrysanthemum of the florists and the exhibitions. They are graceful, daisy-like flowers; the plants blooming profusely from early summer until late frost; average height from a foot to a foot and a half; excellent for growing in masses. Sow in the seed-bed and transplant later to their permanent homes, or else sow where they are to grow, thinning later until the plants are ten inches apart. A little pinching back in early life makes these chrysanthemums into bushy, sturdy specimens. Of the *tricolor* chrysanthemum, *Burridgeanum* and Eclipse are the best varieties, and the double forms of *C. coronarium* are the best. *C. segetum grandiflorum* is taller-growing and especially good for cutting. *C. multicaule,* a dwarf yellow sort, three inches in height, makes a charming edging.

Annual Sunflowers.—Helianthus cucumerifolius, sown in May, will bloom profusely from July until November; plants are about four feet high, many-branched, bearing hundreds

of small bright yellow flowers which may be cut again and again and only bloom the more for it; makes an interesting and quite unusual hedge. Sow thickly. Of the easiest possible culture. Varieties Stella and Orion very decorative and especially good for cutting.

Annual Larkspurs.—Of more delicacy than the perennial larkspur. Very good for cut-flowers. Sow where they are to grow. Give plenty of room and good, rich soil.

Annual Gaillardias bloom all summer, if given good, light soil and open sunshine. *Amblyodon, pulchella,* and *pulchella* variety *picta* are the best sorts.

Sweet Sultan.—One of the *centaureas*—an old annual, not often planted nowadays, but very good for cutting and massing. So also are *Centaurea Marguerite* and *Centaurea imperialis.*

Mexican Firebush (*Kochia tricophela*).—A very unusual annual; each seed produces a plant which looks like a small pyramidal evergreen until the middle of August, when it becomes first pink, then scarlet, then, in September, a deep crimson. Makes a good hedge about three feet and a half high. Also good for massing. Sow in May.

Browallia.—Good for cutting and massing. *B. elata* and *B. grandiflora* are the best varieties.

Crimson Flax (*Linum*).—Very striking and very easy to grow.

Here are a few others whose names are formidable, perhaps, but whose acquaintance it is very easy to make and well worth the five-cent price of admission:

Arctotis grandis, Calandrina, Gaura, Kaulfussia, Leptosyne, Lavatera, Gomphrena, Helichrysum, Rhodanthe, Ammobium, Acroclinium, Amaranthus caudatus.

For Sub-Tropical Effects.—Giant hemp (*Cannabis gigantea*). Grows to the height of ten feet; very effective, but do not plant it too near the house. Castor-oil bean (*Ricinus*), cosmos,

sunflowers—these four are the tallest. Lower-growing plants that will harmonize well with these are: The tobacco-plant (*Nicotiana sylvestris* and *N. colossea*), *Solanum Warscewiczoides;* also the decorative grasses, *Pennisetum longistylum* or *P. villosum*, *P. Rupellianum*, very decorative with its crimson plumes, and the ornamental corn, *Zea Japonica.*

The Growing of Annuals

Directions on seed packets always presuppose a greenhouse and advise one cheerfully to "start indoors in February." But starting seed in boxes in the house requires much more plant wisdom than is needed for sowing them outdoors—it is the difference between raising chickens by an incubator and intrusting most of the responsibility to an experienced hen; therefore, if you are not an expert you will find it much simpler, much less disappointing, to wait until May, and then start the seeds outdoors where Dame Nature does some of the looking out for them.

In the first place buy your seeds at first hand from reliable seedsmen: it is as necessary to have fresh seed as to have a fresh yeast-cake if one would have results, and fresh seed can be had only direct from the best seedsmen. Get single colors, not mixed packets; then when planting you know precisely what you are doing.

Candytufts, California poppies, coreopsis, corn-flowers, Japanese pinks, mignonettes, nasturtiums, petunias, poppies, portulacas, sweet alyssums, and sweet peas prefer being sown where they are to grow; other annuals benefit by transplanting.

The Seed-Bed

If you have cold-frames or hotbeds, by all means sow your seeds there as late as May 1; you will gain a great deal of

time, and on cold nights it is a simple matter to cover them. If you haven't these first aids to gardening—and even if you have—make a "seed-bed." Choose a sheltered place, the shaded part of the day, and near enough the house to be conveniently under your eye. The soil should be light and warm, inclining to sand and enriched with commercial fertilizer or sheep manure. It need not be dug more than a foot in depth. Make the soil smooth and level and then sow the seed in narrow rows; you will not be so liable to mix the infants up with each other nor to mistake them for growing weeds. Be sure to have paths at convenient distances so that you can reach all the seedlings without stepping on any. Make the seed-bed large enough so that the first sowing will take up only about a quarter of the whole seed space. Water with a fine spray and keep moist until the seeds have germinated. A well-known rule is to cover a seed four times its depth. More seeds are lost by too deep planting than by too shallow. There are a few seeds which require special treatment. Japanese morning-glories germinate better if one files a notch in the shell.

After two or three leaves have formed the infant seedlings should be transplanted until they stand about four inches apart. If there is an abundance of seedlings and one has scant time, pull up the intervening infants until the little things which are left stand at the right distance. This, however, is a rather hard-hearted process. If the little seedlings are growing too tall and "leggy" they may be "pinched back." This induces more root growth. When they are three or four inches high transplant again until they are six inches apart. They will then make rapid growth and soon be ready for transplanting to their permanent homes.

Always choose a cloudy day or late afternoon for this operation. Be very careful of the roots. A woman gardener's

suggestion of taking a shallow biscuit tin, half filling it with water and setting the infants in this during transit, is an excellent one.

Gardeners who are sufficiently Spartan pick off the first buds and let the plant get a little more strength before flowering. The result is a stronger plant and better blooms. But not all of us are Spartans.

Annuals Which Every Gardener Ought to Know

Here follow a few of the common and thoroughly satisfactory annuals. Those marked * are best sown in the seedbed and transplanted when two or three inches high to their permanent home. Those unmarked should be sown where they are to grow.

HARDY ANNUALS WITH LONG-BLOOMING PERIODS

Candytuft (*Iberis*): Height, 1 foot; colors, white to carmine. Sow about April 15; any good soil; open sunshine. Blooms July until frost.

California Poppy (*Eschscholzia*): Height, 1 foot; color, a rich orange, very brilliant; thrives in any good soil; sun; an excellent edging. Blooms June until frost.

* Drummond's Phlox (*Phlox Drummondii*): Height, 1½ feet; both tall and dwarf varieties come in charming shades of salmon-pink, carmine, and pure white; ordinary soil; open sun. Best started in the frames. Blooms July until frost.

* Marigold, African: Height, 2–3 feet; color, orange and yellow. Sow end of April in any garden soil; open sun. Blooms July until October.

* Marigold, French: Height, 1 foot; color, orange and yellow; any soil; sun. Blooms July until October.

Morning-Glory: Height, 8–10 feet; various colors. Sow about April 15 to 30 in ordinary soil; morning sun. One of the most satisfactory vines. Japanese varieties are very showy. Blooms July until frost.

Nasturtium, Tall: Height, 6–10 feet; colors, various. Sow April 20 to 30 in drills three inches deep. Any garden soil; sun. Thin seedlings to six inches apart. Blooms July until October.

Nasturtium, Dwarf: Height, 1 foot; various colors—maroon sorts have the most distinction. Sow end of April. Blooms July until October.

Petunia: Height, 2–3 feet; various colors. Sow April 15 to 30 in good loam; sun or half-shade. Avoid magenta tints; the fringed varieties in clear pink are charming. Blooms June until frost.

Sweet Alyssum: Height, 6–9 inches; color, white. Sow in ordinary soil; sun or half-shade. Dwarf varieties are best for edging. A most untiring annual. Blooms May until November.

Sweet Peas: Height, 4–5 feet; colors, various. Sow as early as possible in deep, rich soil; open sun. Give brush or wire-netting for support. Bloom June until frost.

* Tobacco-Plant (*Nicotiana affinis*): Height, 2–4 feet; color, white. Sow April 15 to 30 in ordinary soil; sun. Transplant seedlings from ten to twelve inches apart. A coarse-growing plant, but effective.

* Zinnia: Height, 3–3½ feet; various colors. Sow end of April. Transplant seedlings to deep, moist soil, setting them two feet apart. Zinnias should have plenty of room. Blooms July until October.

OF SHORTER BLOOMING SEASON BUT WELL WORTH WHILE

* Balsam: Height, 1½–2 feet; colors, white, salmon-pink, blood-red. Sow end of April in ordinary soil; sun or half-shade. Blooms July until mid-September. May be started indoors.

Coreopsis: Height, 3–3½ feet; colors, various. Sow April 1 to 15 in ordinary soil; sun; *atrosanguinea* (dark-red) has more distinction than the ordinary yellow variety. Blooms July and August.

Corn-flower, Bachelor's-Button (*Centaurea cyanus*): Height, 2–3 feet; colors, various. Sow April 15 to 30 in ordinary soil; sun. "Emperor William," a deep "Yale" blue, is the best variety. Blooms June and July.

* Cosmos: Height, 6–8 feet; colors, pink and white. Sow in open April 15; any good soil; sun. Can be started in a box. The early sorts are surest to bloom before a frost; the later varieties are the more attractive. Blooms in September. Cosmos should be protected from the wind.

Japan Pink (*Dianthus Heddewigi*): Height, 10–12 inches; colors, various. Sow April 1 to 15 in any good soil; open sun. New varieties, such as "Salmon King" (double) and "Salmon Queen" (single), are especially charming when planted in rows with the old-fashioned white variety. Blooms August and September.

Poppies: Height, 2–3 feet; colors, various. Sow very lightly, barely covering seed, in a good (sandy) loam; sun. "Shirley" poppies have a wide variety of colors and are easiest to cultivate. Peony-flowered poppies are very handsome and very difficult to transplant. Of the white varieties one of the best is the opium poppy. Sow in rows or patches where they are to grow. June. Sow again a month later for a succession.

Portulaca: Height, 6 inches; various colors. Sow in sandy loam; sun. Good ground cover. Blooms July and August.

Mignonette: Height, 8–15 inches; color, greenish. Sow April 15 to 30 in sandy loam; sun. Rather hard to transplant. Blooms July and August.

XXI

HOW TO HAVE SUCCESS WITH ROSES

Rose-growing has come to have much the same aspect as wedlock—a thing not to be entered into lightly, but soberly and most advisedly. If a beginning gardener proposes to set out roses the counsel given is usually: "Don't." When a bold-spirited gardener disregards this advice and sets about making a rose-garden he quickly reaches a state of dazed and helpless bewilderment. First, at the multitude of roses that throng the catalogues, each one as desirable, apparently, as its fellow; next he finds himself in a maze of disconcerting classifications, lost in a labyrinth of Bourbons, Noisettes, Polyanthas, Teas, Hybrid Teas, Hybrid Perpetuals (the T., H. T., H. P. of the catalogues); added to this is the lengthy and sobering list of possible diseases, the portentous array of insect enemies, which things make of rose-growing a most hazardous undertaking. Yet our grandmothers grew roses—probably not prize roses, but still abundant and lovely, and they had them in their gardens as a matter of course.

Now, rose-growing is not a thing of extraordinary difficulty. Of course, if one expects to take prizes at exhibitions then rose-growing is an art; but if he simply wants roses enough to delight his eyes and perfume his garden, that is a thing from which no array of bristling difficulties should stop him. Sometimes obstacles which look like lions in the way can be "shooed" aside as easily as if they were hens.

The Best Way to Buy Roses

Whoever wants roses that will do something directly doesn't experiment with slips or cuttings, except for the fun of it, but gets two-year-old plants from a worthy rose-grower who has grown them himself. Do not try imported plants, even when a bargain-counter lures. The imported gown may be all one could desire, but the imported plant is by no means as satisfactory as the home-grown one. The climate of both England and the Netherlands is quite different from ours; solely for its horticultural value (and quite correctly) an eighteenth-century poet praises "Britain's watery sky." It seems to have been made especially for gardening purposes. Plants coming from these countries to ours feel the difference sorely. An expert knows how to manage imported plants; it is wiser for an amateur not to try it unless he has a good deal of garden wisdom.

Latitude is an important consideration in the selection of roses. The Crimson Rambler, which in the North will grow for any one, is in the South rather liable to disease, and for beauty cannot compare with the Banksias or the wild Cherokee Roses. There is also a difference in the planting season. On account of this difference one buys his plants preferably from a nurseryman in his own latitude. If one has wisdom enough to recognize "suckers" from the roots, and resolution enough to cut them out, then a wide range of budded roses is possible. But if one cannot tell a "sucker" when he sees it, he never should buy roses except on their own roots.*

* See chapter on pruning.

Some Things Which Roses Require

There are a few details of diet and environment which roses insist upon, and if the gardener won't or can't supply them he might better leave the rose-bushes at the nursery, for they "won't be happy till they get them." The first is plenty of sunshine; the second is shelter from north or west winds (the sturdy Crimson Rambler grown on a wire-netting will often give protection enough); thirdly, roses like a place to themselves and show little interest in blooming if they have to be closely associated with other garden-folk; they are aristocrats by nature, and very exclusive ones; for diet they like rich food and plenty of it, enough water for drink, but fresh water, not persistently moist ground—"roses abhor wet feet," as one writer expresses it. Don't try to grow roses near trees—there is little nourishment for anything in such a place, and roses will do nothing if starved.

The best place for a real rose-garden is a southeastern slope. Roses love the early morning sun. The next best place is a southern or southwestern slope from which winds are cut off. Though aristocrats in the matter of other flowers, roses are perfectly happy in many situations which are not in the least distinguished. They will grow luxuriantly over the wire-netting of a hen-yard. The south side of a barn-yard and the neighborhood of a compost-heap are places they delight in. In the country a congenial spot for climbing roses is near a kitchen-porch, where, in spite of precept, the water from the washing of hands is apt to be thrown. Not only do they enjoy the diet but they also keep many a germ from finding its way into the well. I am inclined to think that the sixteenth-century notion that roses were peculiarly health-giving came from the unsanitary condition of the houses and

the fact that roses have healthy appetites for germs, so that the more rose-embowered the cottage the less typhoid.

How Roses Should be Planted

June is the time to admire roses rather than to plant them, but it is the time of all others to plan a rose-garden. It needs a bold and flighty imagination to see roses in one's garden in January, but in June it is a very simple matter to know where we would like to have a climbing rose. One can visit nurseries, look over the fence at one's neighbor's garden, and decide intelligently what roses one must have and precisely where they should go. Roses can be ordered at any time; the proper time for planting is the orthodox shrub-planting time—late October and November in the North, also early March. In the South and in California February is the usual planting month.

First mark out the beds; if you make them wider than four feet you will find them difficult to manage. Dig the bed to the depth of at least two feet and a half; three feet is better —some gardeners, when the soil is poor, have the beds no less than four feet deep. Throw all the soil aside. If it is sandy don't use it. Unless the subsoil be of gravel—in which case the drainage problem is solved by Mother Nature—put in the bottom a six-inch layer of broken stone. Then fill the bed with good, heavy loam mixed with manure in the proportion of one part of manure to six parts of soil (only well-rotted manure should be used; the very best is cow manure). The soil and manure should be mixed very thoroughly. Hybrid Tea-Roses will grow in a lighter, much more sandy soil than Hybrid Perpetuals.

Set the plants from eighteen inches to two feet apart; if in rows it will be found more convenient to dig a trench eighteen

inches deep and a foot or more wide. Be sure that the bud or graft is two inches below the soil, or else you may have trouble with suckers. Water thoroughly when planted, and if the weather be dry the ground should be kept moist for some time after planting. If you dislike the look of the brown earth carpet the beds with *Viola cornuta* or with pansies.

Pruning comes next, and in rose-growing is very important. It is one of the first things that a rose-grower must learn if she would have roses in abundance. Single roses may for the most part be treated as plain "shrubs" and require little or no pruning, but garden-roses, the Teas and Hybrid Perpetuals, these require careful and intelligent pruning and plenty of it.

Rose Enemies and How to Meet Them

This brief list of possible evils need not terrify an amateur. Forewarned is forearmed. The possible diseases of children make a large volume, but few parents are afraid to try raising them on that account. Strong, healthy rose-plants are not liable to be afflicted, and rose enemies are like other evils—if nipped in the bud little damage is done, and roses are well worth the bit of watchfulness they entail.

Rose-Beetle.—Probably the first insect whose acquaintance the rose-grower makes is the rose-beetle or "rose-bug," which sometimes comes in hordes like the Egyptian locusts. The only sure way of vanquishing this enemy is the primitive method of "hand-picking" or jarring off the insects into a pan of kerosene. For this work the early morning is the best, for then the insects are more stupid and inert than ever. Most remedies that kill the beetles kill the roses also.

Black Spot.—This is a fungous disease, apt to appear late in the season, and usually confined to Hybrid Perpetual Roses; Teas are rarely afflicted with it. The black spots are

first noticed on the leaves at the base of the plant; later the disease works upward. About the middle of June gardeners begin to watch for "black spot." As soon as a spotted leaf is observed the spray should be cut off and also two or three leaf-stalks above the unfortunate, although they may seem unaffected. These should be taken away and burned. Spraying in April before the foliage appears and again in late June with Bordeaux mixture is the best preventive, but even this is a bit uncertain: it discolors the foliage and cannot be applied while the plants are in bud.

Aphis.—This is a tiny, green, sucking insect which, if you let it, swarms over the stems of plants; whenever aphides are noticed no time must be lost, for they increase with incredible rapidity. Tobacco dust applied when the foliage is moist will discourage them. The surest remedy is tobacco-tea: this should be applied with a sprayer or a whisk-broom. If the tea is in a wide dish-pan the head of the plant may be bent down, and the affected branches dipped in it and the aphides both poisoned and drowned, thus making assurance doubly sure. If you have but few plants five cents' worth of the cheapest smoking-tobacco will be enough to make two gallons of the beverage. Pour on boiling water and let stand until cool.

Green Worms: various larvæ which in their adult stage become different winged insects.—As larvæ they are alike destructive to rose foliage. Take a small powder bellows and while the leaves are moist dust them with powdered hellebore. This will not improve the appearance of the rose-bushes, but in a day it can be washed off with a hose and the enemy will be found to have been expunged also.

Mildew.—When roses haven't an abundance of air and sunlight mildew may appear, especially after cool nights.

The symptoms are a crinkling of the foliage, which becomes grayish in tinge. The moment you notice this, dust not only the afflicted rose-bushes but all the others, as well, with flowers of sulphur. Repeat in a few days, for the sulphur is more a preventive than a cure.

Some Roses for Beginners in Gardening

For California Gardens

BUSH-ROSES

Kaiserin Augusta Victoria.
La France.
Maman Cochet.
Papa Gontier.
Etoile de Lyon.
Paul Neyron.
General Jacqueminot.
Helen Keller.
Ulrich Brunner.
Mrs. John Laing.

CLIMBING ROSES

Cherokee.
Gold of Ophir.
Reine Marie Henriette.
Rêve d'Or.
Devoniensis.
Gloire de Dijon.
Beauty of Glazenwood.

For Southern Gardens

BUSH-ROSES

Baroness de Rothschild.
La France.
Souvenir de la Malmaison.
Gloire Lyonnaise.
Paul Neyron.
Etoile de Lyon.
Kaiserin Augusta Victoria.
Madame C. Testout.
Papa Gontier.
Mrs. John Laing.
Duchesse de Brabant.
Gruss an Teplitz.

CLIMBING ROSES

Devoniensis.
Cloth of Gold.
Reine Marie Henriette.
Rêve d'Or.
Cherokee.
Banksia.

For Chicago and Gardens of the Middle West

BUSH-ROSES

Prince Camille de Rohan.
Magna Charta.
Mrs. R. G. Sharman Crawford.
Louis van Houtte.
Captain Christy.
General Jacqueminot.
Mrs. Paul.
Crested Moss.

CLIMBING ROSES

Seven Sisters.
Crimson Rambler.
Carmine Pillar.
Dawson.

For Northern and Eastern Gardens

BUSH-ROSES

Alfred Colomb.
General Jacqueminot.
Madame Plantier.
Louis van Houtte.
Madame Gabriel Luizet.
Mrs. John Laing.
Paul Neyron.
Frau Karl Druschki.
Ulrich Brunner.
Kaiserin Augusta Victoria.

CLIMBING ROSES

Carmine Pillar.
Crimson Rambler.
Dawson.
Wichuraiana Hybrids.
Débutante.
Dorothy Perkins.
Farquhar.
Prairie.

Roses for the Seaside

BUSH-ROSES

Rosa Rugosa—all varieties and their Hybrids.
Polyantha Roses.
Madame Plantier.
Scotch Rose (*R. spinosissima*).
Egan.

CLIMBING ROSES

The Penzance Sweetbriers.
Evergreen Gem.
R. Wichuraiana.
Gardenia.

XXII

HOW TO MAKE SLIPS AND CUTTINGS

It is one of the delights of gardening that among plants two and two do not of necessity make four as in arithmetic: they may become six, or eight, or twenty-five, or even fifty, in the hands of a clever gardener. In July and August, when the honors of the season belong to the perennials and annuals, and last year's begonias, verbenas, and geraniums are leading a secluded life in an out-of-the-way corner of the garden, the latter might with a little trouble be made to employ their leisure and devote their ungainly branches to producing flourishing families of little verbenas or geraniums, as the case may be, which will be abloom this winter.

There are many ways of multiplying plants, and the making of cuttings is one of the easiest. A cutting is a portion of a plant which is cut from the parent plant and set in the ground, where it may begin life on its own responsibility. It may be anything from the leaf of a rubber-plant to a tiny twig of a cedar or an oak tree, but if it is cut from an older plant and set in the ground to root for itself it is a cutting. There are root cuttings, tuber cuttings, stem and leaf cuttings. The stem cuttings are the most familiar. Of these there are "hard-wood cuttings," made in the winter or early spring, when the plants are dormant—this is the way in which most shrubs and vines are increased—and "soft-wood" or "green" cuttings, made in the summer, of growing wood (if of shrubs), while, with herbaceous plants, all would be "soft" or "green" cuttings.

Slips.—A "slip" is a green or soft cutting. Because the word is little used by gardeners, rarely met in garden books, but much used by amateur gardeners (who extend it sometimes over some of the larger area belonging to cuttings), I have stopped to explain about the two.

Among indoor plants the majority of cuttings are made in the early spring or during the winter; but some may be made in summer. Among the plants which lend themselves to this use are the shrubby begonias—not the tuberous or the Rex varieties—verbenas, fuchsias, geraniums, coleus and many other bedding plants. These are usually ready for slipping in late August. To make certain, try breaking off a piece. If the stem bends, as flower-stems often do when one is trying to pick them, then the "wood" is too soft, and it is better to wait a while. But if the stem snaps, then cuttings can be made in the latter part of August and early September with an easy conscience and a reasonable expectation of success.

1. When the wood is ripe. 2. Too soft for cutting

Get Materials Ready First

A good cook never begins operations until all the materials and utensils are at hand; neither does a good gardener.

Plant infants need a rather different soil from that which they can digest in later life. The soil for cuttings (grown indoors) should always be sifted or screened. A coarse, sharp, clean sand is the very best, a sand inclining to gravel rather than extreme fineness. "Propagating sand" may be had from any florist, but soil quite as good may often be found in any sand-bank. Good drainage is essential.

There are many devices for rooting cuttings, and each gardener thinks his the best. If one has some way which has always been successful, by all means use it. For those who have none, here are some of the simplest methods:

Henderson's Saucer Method.—Take a deep saucer, fill it nearly full of sand, place the cuttings slantingly, almost lying down, and keep the sand positively wet. This does not need to be shaded at any time, and is one of the best and simplest ways of rooting cuttings in the summer.

Single Pot.—Cuttings are often rooted in a single small pot. In this case bits of stone or crock are put in the bottom for drainage, then above this sand, and the little cutting is placed close to the side of the pot—in which position it roots better, for an excellent reason but a reason too long to give.

Forsythe's Pot is a revised and improved edition of the above. To make this sort of propagating pot, take a two-inch pot and plug the hole at the bottom with plaster of Paris or a cork. Then take a six-inch pot, put the layer of drainage in the bottom and set the little pot in the middle so that its rim is level with that of its six-inch associate. The space between the two pots is filled with sand, and here the cuttings are placed. The inner pot is filled with water. This affair is very professional-looking, and is also very easy to manage.

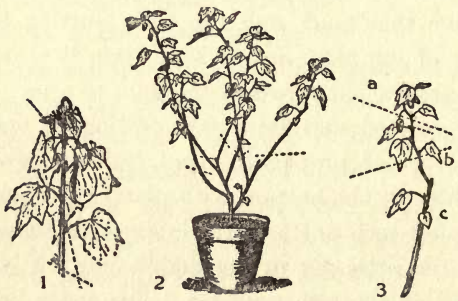
Cutting-Bench.—If you have the space in a greenhouse or by a sunny window, or wish to start many cuttings, by all means have a cutting-bench. This is an ordinary bench, about a foot below the level of the lower edge of the greenhouse-sash.

It is enclosed by boards, making a box about six or eight inches high. In this is placed the three-inch layer of drainage, then about four inches of sand. It is necessary that some shade should be arranged—a screen of lath or whitewashing of panes.

Flats or Boxes.—The shallow two-inch or three-inch deep boxes which were used for starting seed may be filled with sand and utilized for starting cuttings, either in the frames or in a window.

Making the Cuttings

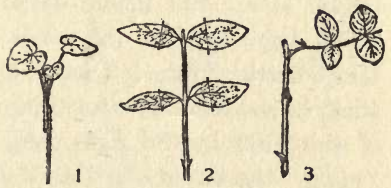
The Parent.—Even in making cuttings a good gardener keeps his eye on the shape of the larger plant, and, other things being equal, he cuts as he would be likely to cut back the plant, leaving it reduced in size, of course, but in good shape for putting out a young growth and becoming a thrifty and symmetrical plant for its winter season. The shortened branches should be left with the cut just above an "eye."



Abutilon and cuttings from it

The Cutting.—Suppose you are cutting back a rather straggling and overgrown abutilon. (This may be done in late August or early September.) The branches should be taken off at the dotted lines, as shown in the illustration. In some plants—begonias, for instance—almost every inch of the wood can be used for cuttings; here only the young growth can be used, and each branch will give but two or three cuttings—in the branch shown only two are made (3). The length of the

cutting is by no means so important as the number of "eyes," as gardeners call them, or leaf-buds. Although cuttings are sometimes made with a "single eye" it is better to have two or even three. In an old plant it is from these points that the leaves start. In a cutting the leaves start from the upper eyes, and roots from the lower ones. Therefore, when making ready the slip or cutting for planting, the lower leaves are cut off that the roots may come out more conveniently. If necessary, the cutting itself is shortened so that the cut at the bottom is just below an eye and at the top is just above an eye; this is so that the leaves will start as nearly as possible to the top of the plant, the roots at the bottom (3). If there happens to be a blossom it should be cut off—no cutting should be asked to undertake the support of a flower; it has not the root-strength. It is for this reason that the leaves are sometimes cut, as in the hydrangea cutting (2). The more leaf surface the more trouble for the roots, and the early life of a cutting should be made as easy as possible. Until it roots, a very short cutting may be pieced with a toothpick, which will hold it upright (1).



Typical cuttings

Dormant Cuttings are made in the winter or early spring before growth begins. In these the eyes show but slightly, and in making them one must be careful to lay the cuttings side by side, heads together, that they may not become mixed and have the misfortune to be planted upside down.

Always use a sharp knife and always make a clean cut; never pull or haggle the plant. The cut surface must heal over before growth can begin, and in neither a plant nor a

human being does a cut heal readily unless it is clean and made with a sharp knife.

Putting Them in the Sand

The sand-pot or cutting-bench was ready first. Now the cuttings are ready. If you are planting a good many in a cutting-bench take a stick, rule a line from the back of the bench to the front; make a little trench about two inches deep. Then, beginning at the back, take a cutting in the left hand, a stick (a pot-label or something of the sort) in the right, and "plant" the infants, setting them a little obliquely and about two inches apart. Hold the plant in position, then push in the sand well about the stem as carefully as if it were a seedling, and make firm with the fingers. Then make the next row about two inches from the first. Never push a cutting into the sand as if it were a skewer being thrust into a roast, not even if it does look like a little stick. This may bruise the end from which the roots start. Gardeners never forget that plants are alive, even if they don't look it. When planting is done, water well with a fine spray and keep the cuttings shaded for some days, either by laying newspapers over them, or, if they are in the cold-frame, by using a shade of lath. Cuttings should never be allowed to "dry out," neither should they be kept too wet, or they will incur the other cause of infant mortality, "damp-

Potting rooted cuttings

Right depth in sand

ing off." The usual depth of a cutting in the sand is shown in the illustration.

Potting Seedlings

In about three weeks, if the cuttings have kept thrifty, they will probably have rooted, but the way to find out surely is to look at one and see—but don't pull it up by the roots. Take in your right hand the flat, sharp-pointed stick or the six-inch pot-label referred to before (which is an excellent tool); hold the little cutting lightly in your left hand between thumb and finger, then insert your stick about two inches to the side of the cutting, push it underneath the infant and pry it out carefully. With an expert gardener this is only a second's work, and if the cutting is not rooted it is back in the sand before it has had a chance to feel anything. The illustration shows a chrysanthemum, a fuchsia, and a begonia ready for potting.

Lifting rooted cuttings

XXIII

GARDEN DIFFICULTIES AND HOW TO MEET THEM

Drought and What to Do About It

Probably the greatest anxiety of the gardener will be about the water-supply. The delicately clad maiden, who, watering-pot in hand, walks in the garden in the cool of the day and sprinkles lightly the plants, is a pleasing vision and one which has always been dear to the poets, but a gardener has scant use for her. The watering at evening is well enough, and the sprinkling always pleasant to the leaves, but daily sprinkling as a means of giving the roots a drink is an invention of the serpent and one of the things he would surely have taught Eve when he set about spoiling her gardening in Paradise.

In the first place, the best preventive of suffering from drought lies not in the watering-pot, but in the spade, in deeply dug garden-beds which enable the plant roots to extend comfortably down where they can find food and moisture and maintain a serene indifference to surface conditions.

Another excellent preventive which also has nothing to do with a watering-pot is a "ground mulch"; this is simply the practice of keeping the soil loose and light on the surface of the ground, preventing the too-rapid evaporation of moisture.

Rhododendrons and azaleas, especially those of the first year's planting, benefit greatly by being given a summer mulch —that is, a layer of dead leaves or other garden litter some three inches deep. It is a thing they have in their own homes,

and they like it in their adopted ones. Dame Nature is by no means as fond of what New England selectmen call "slicking up" as most gardeners think she ought to be, and her method of disposing of stray leaves, both winter and summer, by blowing them into shrubbery corners, is a most unhousewifely practice, one must admit, but the plants like it.

Sweet peas benefit much from a mulch of lawn-grass clippings.

All these practices save the water and the gardener's labor.

The Best Way to Water Your Garden

The Lawn.—It may be a pleasing sight to see a sprinkler throwing its spray in the sunshine, but your lawn will derive much more real benefit if after sundown the hose is simply laid down on it and the water let run slowly. When one place is thoroughly soaked move it to another and so on until all is thoroughly wet. In a very dry season it is better to let the grass remain a little long—it protects the roots.

The Garden.—If the plants are in rows one of the best ways of watering is to make a deep furrow with the hoe, fill this with water, let it soak in; fill again and yet once more, then replace the soil, and every drop of water has gone where the plants most need it, and the excellent habit the roots have formed of extending down for water is not corrupted. If this is not practicable soak the plants thoroughly after sundown, then the next morning loosen the soil and make a "ground mulch," and your garden is safe and happy for a week at least.

When Water is Scarce.—Drought in the garden is usually the contemporary of a low cistern and a dry well. At such times dish-water and wash-water should be religiously saved for the garden, and applied as above directed. One farmer's

wife has her sink so arranged that the water from it runs into a trough or leader which empties into the fruit-garden some thirty feet away. This trough can be shortened and lengths of it removed, so that one day the strawberries are watered, another day the currants, and so on—it is a small irrigation scheme, but a good one. Any farmer's wife who has known the suffering drought makes in the garden should get from the Department of Agriculture, Washington, D. C., Farmer's Bulletin No. 138, which gives a clear account of the way to make a water-supply go the farthest.

Dealing With Insects

In warfare with insects, as in other warfare, the crux of success lies in getting ahead of the enemy. It is hard to rid a country of an invading force once it has overrun the territory; it is comparatively easy to keep it out. The way to kill the second destructive brood of currant worms is to kill the first brood, which is almost unnoticed. In fact, for the gardener the ideal attitude toward insect pests and plant diseases is that of the "Little Pig" in the nursery legend, who, when his morning appointment with the wolf in the apple-orchard was at six, took care himself to arrive at five.

Preventive Measures

General Health.—Healthy, well-nourished plants are not so likely to be troubled, either by disease or insects, as are feeble ones.

Bordeaux Mixture.—One of the most effective preventives which the gardener can apply is Bordeaux mixture. In fact, an ounce of it applied as a preventive is worth gallons of it as cure.

With Bordeaux, rust in hollyhocks and asters is prevented,

if the plants are sprayed about the end of April and again about May 15. To prevent blackening of the leaf in larkspur and monkshood spray the plants about June 15 and again about July 1. If phlox has been subject to mildew a spraying with Bordeaux at the end of June, repeated in mid-July, will prevent it.

Bordeaux combined with arsenate of lead and applied beforehand will sometimes deter the indefatigable rose-bug, an insect as indifferent to obstacles as Longfellow's youth who bore the banner Excelsior. In cases of doubt Bordeaux is used in alternation with tobacco-water. This useful compound may be had in a powdered form, in which case one uses four ounces of Bordeaux to two gallons of water. It also comes in cans like a condensed soup and is prepared in similar fashion —just add the water and serve. The home-made article is more inexpensive and by far the better, if one puts it together carefully. If you wish to try making it send to the Department of Agriculture, Washington, District of Columbia, for Bulletin Number 243.

Any one objecting to the temporary discoloration of the plants may use instead of the Bordeaux the compound known as ammoniacal solution of copper, which is a clear liquid. Forty-five gallons of water, three pints of strong aqua ammonia, five ounces of copper carbonate is the formula.

To one who has never tried it the spraying of plants seems a weighty undertaking, but, although the ingredients are unfamiliar, the formulas are no more difficult to follow than a simple cookery recipe, and they are a very A B C to the directions usually found on a paper pattern, which many women will follow fearlessly.

Inexpensive Gardeners' Assistants

Do not neglect to secure all the allies you can to police your borders. The time of the "hired-man" is expensive, his methods cumbersome compared to the deft work of those humbler garden-assistants with whom the despatching of insects has for countless generations been a specialty and a means of livelihood. Don't kill the harmless garter-snake that slips across your path—he is on no errand of mischief, but one of beneficence. If Eve had set the serpent to work at his proper business of killing insects he would have had no leisure for temptation. Encourage the birds, especially the titmice, wrens, orioles, and woodpeckers, but above all invite the presence of toads. If you can get them in no other way, follow the Scriptural injunction and go out into the highways and byways and compel them to come in. Slugs, chinch-bugs, cutworms, all sorts and conditions of caterpillars—even "thorny" ones—all seem alike acceptable to the toad; also he has an astonishing capacity. When one considers that a toad will calmly swallow, one after another, eighty-eight rose-bugs and be ready for more, and that four times a day he fills his stomach, one sees how extremely useful to the gardener is his sturdy digestion, his catholic and comprehensive appetite. In the matter of slugs and cutworms, insects which wait until night before taking their walks abroad, the toad, being a nocturnal animal himself, is peculiarly valuable.

If my account savors of romance, get from the Department of Agriculture, at Washington, Bulletin Number 196 and read it.

Troublesome Insects

However the biologist may define them, the gardener finds that insects, from the minutest scale to the fattest cutworm,

may be grouped into three classes: first, those that may be killed by direct assault by turning upon them the deadly batteries of various noisome sprays; second, those whose bodies are proof against such attacks and must be reached in subtler fashion, through their appetites—by poisoning their food; third, those which ought to let themselves be killed by either of these methods and will not, and require on the part of the gardener personal work and plenty of it.

Insects Requiring Personal Work

The Rose-Beetle.—Perhaps the most exasperating of those insects which refuse to come and be killed by the most exactly prepared insecticide is the rose-beetle or rose-bug. Upon him, with varying degrees of success, are turned the weapons of the gardener's arsenal: whale-oil soap, kerosene emulsion, lime whitewash, hot water at a temperature of from 125 degrees to 130 degrees Fahrenheit—these will sometimes lessen his fervor, but any insecticide strong enough to kill the rose-bug injures the roses, and the only sure remedy is the tedious and primitive one of "hand-picking" and dropping each insect into a pan of kerosene. Netting like that spread over fruit-trees will sometimes exclude rose-bugs. Many gardeners set Conspicua magnolias and the white Madame Plantier roses about their rose-gardens as a decoy, for the beetles are fond of these and are more conveniently picked from the white flowers.

The Cutworm.—Another annoying insect is the cutworm. When, without any apparent cause, young asters and larkspurs begin to droop and wither, then, without waiting until the stalk falls (being neatly cut off at the ground surface), take a pot-label or an old jack-knife and poke carefully about the stalk an inch below the surface and you will find the sinner.

A veteran gardener has the almost unconscious habit, while working among his beds, weeding or setting out plants, of keeping his eye out for these workers of iniquity.

Cutworms may be entrapped by making with a pointed stick two or three deep holes by the side of the plant. Being unable to climb out they are easily killed. If the garden has been greatly troubled with cutworms it is well to plough the land in the autumn and let the birds dispose of the enemy. They are often dealt with by poisoned bait—bunches of clover sprinkled with arsenites, and stiff collars of paper are placed around the plants as a protection.

Insects Which May be Dealt with in Masses

Aphides, plant-lice, red spiders, and other soft-bodied sucking insects are usually met with kerosene emulsion or whale-oil soap, or else with tobacco-water, the former being chiefly used on shrubs and woody vines, the latter on herbaceous plants and in the greenhouse.

The commonest garden uses of tobacco-water are for sweet peas, heliopsis, rudbeckia, and the like, when afflicted by the red aphis; for chrysanthemums attacked by the black aphis. To make tobacco-water, pour one gallon of boiling water on one pound of tobacco. When cool apply by a spray.

Kerosene emulsion is used on roses when afflicted by plant-lice, mites, hoppers, thrips, red spiders; also on hollyhocks when attacked by the green hollyhock bug. Here is the recipe: Two gallons of boiling water, half a pound of hard soap, two gallons of kerosene. Dissolve the soap in boiling water, add kerosene and churn for five or ten minutes. Dilute from ten to twenty-five times before applying.

Insects Which Must be Poisoned

Worms, slugs, caterpillars, and other chewing insects—these are despatched by Paris-green, London purple, or (and these are safer to handle) by hellebore or pyrethrum.

Hellebore is used for roses troubled with the worm in the bud, and for killing slugs. It is also invaluable in saving the currant-bushes from being stripped of their leaves. The bushes must be sprayed as soon as the first leaves appear. For spraying use one ounce of fresh white hellebore to three gallons of water; apply when thoroughly mixed.

XXIV

TRANSPLANTING IN AUTUMN

When autumn approaches, to plant or not to plant is the question before the gardener. There are, of course, those plants which, like magnolias among trees and chrysanthemums among herbaceous plants, have strongly expressed preferences for spring planting; and there are the others, such as the spring-flowering bulbs, whose preferences are even more strongly expressed for autumn planting—these are, as one might say, plainly labelled. But besides these are evergreens and a vast number of deciduous trees and hardy plants which are listed in catalogues as "planted in either spring or fall," and the beginning gardener wonders which. Garden books and nurserymen's catalogues are sure to insist on the wisdom of autumn planting, and one's amateur friends usually say "Don't."

Where the Trouble Lies

If ours were a climate of regular and orderly habits, such as the English climate, if things would always freeze December 1, and stay frozen until March 1, if warm weather would come in May and stay until September, if March and April and October and November were cool and equable and moist, one could make the nicest of planting schedules with a clear conscience; the plants manage to bring out their blossoms fairly on time even if they are killed as a result of their punctuality. But the climate has no idea whatever of schedule time or of consistency; it is as perilous a thing to give an exact date for the planting-out of tender things as to give a calendar

date for the removal of winter underwear. Some autumns are peculiarly hard on newly planted stock—last year's, for instance, when a long drought was followed by an unusually severe winter, while last spring, cold and moist, was admirable for newly planted stock. Sometimes it is the spring which is almost impossible for transplanting purposes, because the ground may stay frozen until mid-April and then the spring comes with a rush, hurrying trees into leaf before gardeners have a chance to do anything, compressing the planting season into about three weeks.

Transplanting is always a shock to the system, and any plant needs a week of undisturbed peace and quiet before it must "get busy" again. The pitfall of spring planting is that it is often belated, and the young plant finds upon it the duties of leafing-out and of blossoming before the roots have made connections and are able to supply the food. The injury to autumn-planted stock is likely to result from the few days of unexpected warmth during the winter when demands are made on root-strength which the plant has not; also from "heaving"—that is, when a plant, because of the alternate freezing and thawing, becomes dislodged. This latter danger may be guarded against by mulching, which is essential to successful planting in autumn. In fact I should be inclined to say that, given a careful planting in well-prepared soil, and a good mulch (if the planting be done in the autumn), and the chances of success between spring and autumn planting are about as six to half a dozen.

The Chief Points to Keep in Mind

The whole idea in transplanting is that plants be shifted during their resting period—when they are "dormant," as it is called. It follows naturally that plants which bloom very

early in the spring prefer being moved in the autumn, since the spring is their busy season, while, for a like reason, autumn-blooming plants are usually best shifted in the spring. It is also generally true that the earlier plants bloom in the spring the earlier they may be moved in the autumn. Among spring-flowering bulbs, for instance, although crocuses may be planted late, the preferred order of planting is crocus, narcissus, tulip. Crocuses may be planted in early September, tulips as late as November, or even in a January thaw. The reason being that the crocus likes to make root-growth in the autumn, time in the spring for such work being scant, while tulips, since they appear much later, can wait for this. Peonies like to make a root-growth in the autumn and should be given an opportunity to do so, and September is their preferred month. Mulching should be done after the ground has frozen. A heavy mulch of stable manure applied too early and removed too late will start plants in the hardy borders into an unwise activity.

Don't Plant in the Autumn

Evergreens.—Expert gardeners can move these successfully during a moist September—it is a risk for amateurs to try it. Better wait till spring.

Magnolias, Tulip-Trees, Sweet Gum (*Liquidambar*), or the *American Holly*, which should always be planted in the spring and cut back to a bare pole.

Chrysanthemums, Japanese Anemones, Yuccas, and *Late Tritomas* prefer being planted in the spring.

Hardy Perennials after October 15; they will have no opportunity to make root-growth.

Deciduous Trees and Shrubs under These Conditions: If the planting is to be in an exposed place defer it until spring.

If you are farther north than forty-five degrees it is safer to wait until spring.

If You Don't Intend to Mulch, don't plant in the fall—not shrubs nor trees nor hardy perennials.

Plant These

Spring-Flowering Bulbs.—In the autumn or not at all.

Lilies.—Plant in October, except the American Turk's-Cap, Canadian bellflower, and the Madonna lily, which are planted in August.

Early-Flowering Herbaceous Plants, such as Oriental poppies, peonies, foxglove, bleeding-heart, should be set out as soon as possible.

Deciduous Trees and Shrubs, with the exceptions given above. Planting must be done after the leaves have fallen, approximately from October 15 to December 15.

Hardy Perennials, with the exceptions given above. Planting should be done from September 15 to October 15 (approximately).

Irises should be planted in the autumn if they are to bloom the following summer. If you want a succession of bloom from mid-March until August, try *Iris reticulata*, *Iris verna*, the Florentine, Spanish, white Siberian and German irises, *Iris neglecta* and the Japanese iris. These bloom in the order named. Give them rich soil and plenty of water; roots should be set in clumps four inches deep. Thrive in sun or half-shade.

XXV

WINTER INJURY AND HOW TO AVOID IT

Far more has been laid to the unkindness of the winter wind than is due. Trees that have been carelessly planted in half-prepared soil, that have starved throughout the summer, suffered from drought in autumn, and are blessed with neither of the commonest comforts (a mulch for foot-covering and a windbreak to keep the northeasters from their backs), while rats and rabbits are permitted to worry their roots—these victims, if unable in the spring to send out their leaves, are charged to the account of "killed by the winter." To be sure, the winter days are days of reckoning, a kind of day of judgment for the weaker brethren; yet the verdict of "winter-killed" is sometimes like the coroner's safe and easy statement of "death by heart-failure."

It is one of the paradoxes of horticulture that in winter trees are far more likely to suffer from heat than from cold. For the unacclimated, the peculiar tryingness of the American winter lies not in its severity but in its inconstancy. Capriciousness in April or May makes havoc among the magnolia blossoms and blights the hopes of the azaleas, but it does not wreck the constitution of a plant like inconstancy in January. It is the few sudden warm days in the midst of zero weather that uncurl the rhododendron leaves and loosen the "buds" on the standard roses, so that, the brief armistice suddenly ended, the cold catches them unaware.

Suitable Placing of Shrubs

Shrubs often suffer by being placed in most trying situations, which a gardener of tact would avoid. There are many plants, hardy enough as far as being able to live in the North is concerned, but which, like the novel-heroines of fifty years ago, feel the need of a strong and sustaining personality in the background. With a windbreak of sturdy pines and spruces to temper the force of the northeasters, many trees, which under other conditions would have easily been reported as "winter-killed," can enjoy a long and useful life. At Morristown, N. J., for instance, Mr. D. W. Langton has brought the Southern yellow jessamine (*Gelseminum officinale*) through two winters, quite unprotected, except for being placed in a sheltered situation.

The early-flowering magnolias, which use valor rather than discretion in blooming, should never be asked to bear the brunt of March winds—not if the gardener would enjoy their full beauty. *Kobus* and *stellata* would certainly not be killed, but the chance of their dazzling wealth of blossoms being unhurt is greatly reduced. Such trees may hardly be said to need protection—except from the consequences of their own rashness.

All Trees and Shrubs Profit by Mulching

Of all the winter comforts afforded trees or shrubs, "mulching" is by far the most common, as it is the easiest. All trees and shrubs and hedges and shrubbery borders profit by it. This operation is simply a "bedding" of the trees, as a farmer beds his cattle, covering the ground directly about the tree (including a diameter equal to the spread of its branches) with manure or stable litter or dead leaves to the depth of

from three to six inches. This is the "natural method" of protection and serves two purposes. On the one hand, the mulch is a kind of extra blanket for the roots; on the other, it is an excellent manner of fertilizing and the one which nature follows when left to her own devices.

In the case of a newly planted tree, hedge, or shrubbery, the practice of mulching is especially necessary, because, aside from the peril by cold weather to stem and tops, the alternate freezing and thawing of the ground sometimes dislodges a tree —"heaves" it, as the gardeners say. It is for this reason, the liability to "heaving," that evergreens are rarely planted in the fall. For an evergreen, not being close-reefed for the winter, offers much resistance to the wind, and the tree is likely to "work loose." Therefore fall-planted evergreens should be heavily mulched. For the same reason—to prevent heaving—newly set trees in orchard or elsewhere may profit by having the soil heaped about their stems to the height of six inches.

A mixture of manure and stable litter is one of the most satisfactory mulches. Dead leaves (secured by branches thrust in the ground), leaf-mould, compost, stalks of dead annuals—almost any kind of garden litter may be mixed with manure and put to this use, except—and there is a prominent exception—strawy stuff of any kind should be excluded if rats and mice abound. As for the methods of combating these evils, something on the order of Hannah Glasse's hare recipe is most thoroughly satisfactory—namely, to catch the rats. For protection one uses tarred paper on the stems, birch-bark wrappers or wire-screening wound about them (leaving room enough to insure not cutting the bark). This last method is sure to be discouraging to the enemy. There are several unsavory washes which may be used and for which formulas may be found in Bailey's "Garden-Making."

Other Protections for Frail Constitutions

There are many trees for which more protection than a mulch is necessary. Imported rhododendrons, magnolias during the first winter, *Daphne cneorum*, and others, especially newly planted stock, benefit from a slight shelter. For shrubs and trees, except such as need to be housed, temperance is the key-note of winter protection. It is for this necessity of tempering, rather than for exclusion of cold, that a windbreak is so valuable a thing in gardening. It acts as a nurse for the young orchard, moderating both the force of the wind and the extremes of temperature.

Rhododendrons need protection chiefly from the winter sun. Home-grown rhododendrons, by the way, of hardy varieties such as *album elegans*, *grandiflorum*, Lincoln, and some dozen others, thrive in the latitude of New York with no protection whatever. Some gardeners place wooden boxes about the shrubs, covering the tops with burlap. But this proceeding gives the grounds as melancholy a look as a seaside resort in winter.

Loosely piled evergreen boughs held in place by stakes are the best sort of protection. The boughs, also, may be upright, the thicker end thrust in the ground and the top secured by string. At the Arnold Arboretum snug little teepees of evergreens are made for some magnolias which stand in a rather exposed situation. In the first place, the more projecting branches of the tree are tied in, as nurserymen tie the branches of shrubs together for packing. Then evergreen boughs, each a foot or more taller than the tree, are brought, the lower ends sharpened like stakes, and bough after bough is firmly fixed in the ground at the edge of the circle of mulch. Then each is attached to the centre of the tree by a string until

the magnolia is encircled by the evergreen branches, standing like arms stacked by soldiers. Then the branches are securely tied together at the top, making the whole thing look like a wigwam of fir. In the latitude of New York, both magnolias and rhododendrons ought certainly to stand the climate without cosseting, but for imported rhododendrons and other foreigners whose hardiness is a bit doubtful a little tempering of the wind for the first few winters is advisable.

The winter protection of roses is almost another story. Climbing sorts which suffer may sometimes be laid down and partly covered with earth; the soil should always be drawn up around the stems; but it is better to have only those sorts which are able to endure hardness. Roses should be covered as late and uncovered as early as possible. In fact, the keynote of winter protection, as of other forms of assisting those not quite able to shift for themselves, is to aid if necessary, but to give as little aid as possible.

XXVI

THE WELL-TEMPERED COMPOST-HEAP

When the German-gardening Elizabeth spent her substance on fertilizers she showed a worthy spirit and a willing mind, but had she been deep in the art of composting she might yet have had her new gowns and the plants their luxuries. To a true gardener there is the same pleasure in a skilful making of compost that a French housewife takes in the deft use of odds and ends of her larder.

In the first place, the compost-heap—"rot-heap" as it is inelegantly called—need not be unsightly. Roses and dahlias and sunflowers would revel in its vicinity. In a Princeton garden there is a charming screen at one side, an arbor-like contrivance of rough posts rather closely set and covered by wistaria; within this lovely seclusion is the compost-heap.

How to Make Compost

The compost-heap is a medley. Leaf-mould, manure in variety, rotted sods, stalks of dead annuals, garden litter in variety, slaughter-house refuse, wool waste, cracked bone—all these things, and more besides, though unpleasing in themselves, work together for good in the compost-heap, making the rich, velvety brown mixture which Celia Thaxter so admired.

For the making of this confection there are many recipes. The following are excellent:

SODS

Barnyard Manure.—Place in alternate layers. The sods may be obtained from pastureland or fence corners, or sods

cut out in the making of beds and borders may be so used. Make the pile about six feet long and three feet high, the layers about four inches thick; the sods should be inverted.

This is a typical compost-heap, and, however varied the constituents, the idea is the same: the alternation of animal refuse with the vegetable, that the one may act upon the other.

Before beginning the heap, the ground should be slightly hollowed, basin fashion, and the heap may be "basted to advantage with dish-water or the like. It should also be turned occasionally with a fork that it may decay evenly. Especially when leaf-mould is one of the ingredients, it is well to sift it with a coarse sieve to separate twigs and coarser fibres from the more rapidly decaying material.

The true compost-heap is a progressive affair: at the one end may be the mellowed product of two years' sojourn, ready for immediate use; at the other, the raw material. Thus, like the brook, it may go on forever, however transient the hired man.

The well-tempered compost-heap, conserves the gardener's pocket. It enables him to use to advantage ingredients which, like pig manure and hen manure would otherwise belong to the great army of the "unavailable"; it also saves tender plant-roots from that contact with raw fertilizer which often works disaster to their constitutions.

LEAF-MOULD

Leaf-mould is another valuable and inexpensive asset which the amateur gardener is apt to pass by on the other side. The decaying leaves, sodden by rain and snow, and hardly distinguishable from the forest floor, are rich in humus (which is, being interpreted, vegetable or animal matter in such a state of decay that it is rich and ripe for plant-food). In the

woods, in the hollows, leaf-mould or "woods-earth," as it is sometimes called, may be collected. It may also be made at home after this fashion—and is quite as good, if not better than the original:

TO MAKE LEAF-MOULD

In the autumn dig a pit, some three feet deep and as long and as broad as one pleases. Into this pit throw the fallen leaves and trample them down. Throw in several pails of water. Follow this by another layer of leaves well trampled down, and that by another immersion. Go on in this fashion until the pit is full or the leaves or the gardener exhausted. From time to time, while the leaf-mould is "cooking" it should have pails of water bestowed on it. The leaves should not be allowed to become dry. In about a year, this confection will be ready for use.

Lilies especially relish leaf-mould—so do all plants which dislike barn manure. Azaleas, rhododendrons, and other broad-leaved evergreens are fond of it. For mulching, for potting it is very valuable. Trees can be grown when a soil of pure sand is enriched by leaf-mould. And, as a piece of economy, it is an infinitely better disposal of the dead leaves than the usual custom of burning them.

BARNYARD MANURE

Garden-making without barnyard manure is as tedious as the strawless brick-making was to the Israelites.

This same barnyard manure, to a modern farmer the "immediate jewel" of his establishment, is a product which the old-style farmer, hard-headed and canny with his pennies, has always managed like the veriest spendthrift. Manure thrown in an open heap in the barnyard, after the usual custom

in the days when "father used to farm," had precisely fifty per cent of its value thrown out also. Pig manure, except for the compost-heap, should be avoided. Cow manure is the most valuable, horse next. All manure should be kept under cover. The liquid manure, which is peculiarly rich in nitrogen, should not be allowed to be lost—as it usually is. The bedding of cattle with sawdust renders the manure useless. These are merely a few points, but if the gardener has but a single horse or cow it would profit him to read Professor I. P. Roberts's "The Fertility of the Land," whence he may learn how properly to care for and conserve this particular blessing of Providence.

XXVII

DETAILS OF GARDEN WORK

How to Make Ready a Flower-Bed

First stake out the bed, have it dug to the depth of two feet, the soil being thrown to one side; then it is possible to see what manner of soil it is.

Roughly speaking, there are three kinds of soil: clay, sand, and gravel. A workable mixture of clay and sand is called *loam*. When garden books and seed packets refer to a *sandy loam*, a mixture is meant in which sand predominates; in a *clay loam*, clay is the ruling ingredient. When garden books advise a "rich, heavy loam," the writers probably mean a *clay loam* which, by the addition of manure, or by the ploughing in, during successive years, of cover crops, has been sufficiently enriched to furnish abundant nutriment. A "*garden loam*" is a deeply worked loam which has been long under cultivation.

Manure both enriches the soil and improves the texture—"lightens it," and "shortens it," as the gardeners say, very much as butter or lard "shortens" a housewife's cookery. Putting it on in the autumn is a definite advantage, since it then becomes thoroughly incorporated with the soil. On the other hand, a commercial fertilizer, adding only nutriment and not affecting the texture, need not be applied until the plants have an actual use for it as a food. If the soil is poor and sandy, best throw it away and put in better; if this is not practicable, then plant only those "complaisant" flowers which will not object to a meagre diet.

Different plants require different diet. For roses, put three inches of broken stone in the bottom of the bed and mix in well-rotted manure (in the proportion of one part manure to six parts soil). For other plants the soil need not be so rich —one part manure to ten parts soil is abundance for the average plant. If one can't afford much fertilizer, then especial care must be taken that the ground be deeply dug and thoroughly cultivated. Deep digging, so that the roots will find it easy to extend far down after food and moisture, is one of the best preventives of suffering from drought and lack of nourishment.

How to Transplant Shrubs and Perennials

Always unpack plants under cover. Never leave them with roots exposed to sun or wind. If the roots seem dry, soak in tepid water. If any are broken, cut just above the break with a sharp knife. In separating clumps of perennials—peonies, larkspurs, hardy phloxes, and the like—don't cut the roots if they can be disentangled. In fact, a decent respect for the roots, their preferences, structure, constitution, and habits is the Alpha and Omega of transplanting.

For the actual setting-out have the hole dug deep enough and wide enough; as we are not planting a post, it is more important to have a hole deep at the sides than in the centre. Spread the roots out carefully—as nearly as possible in their position before being moved. Never let roots come in direct contact with manure. The plant should be no deeper in the ground than it stood before. Two or three inches too deep may cause real injury to a tree.

Actual planting is done in this fashion. Hold the plant with the left hand in the position it should be when set. If it is too large have some one else hold it for you. Work the fine

soil in well about the roots; for this your fingers are better than a trowel or shovel. When the hole is half filled pour in water. Let it settle, then repeat the process. This washes the soil closely about the roots. Fill up, press down firmly, then make the soil loose on top with a rake.

Newly planted trees and shrubs should be cut back about one-third the last year's growth. This sacrifices most of the blossoms of the present spring, but the tree is the stronger for it and will repay you another season, and as Andrea del Sarto's Lucrezia should have said,

"The present by the future—what is that?"

How to Divide Plants

September or early October is the time of year when generosity is likely to flourish in the garden, for it is the season *par excellence* for enlarging one's borders by dividing perennials. The most delightful of exchanges are current among gardeners, and, like the quality of mercy, there is no strain about this form of generosity: it blesses both him that gives and him that takes. One gardener, in separating his phlox, finds more roots than she needs, therefore some of the phlox goes over the fence to a neighbor's garden in exchange for clove-pinks or columbines. They are a far pleasanter form of introduction than when merely bought.

This dividing of plants is, for a beginning gardener, no small ordeal. One has somewhat the feeling of Abraham offering up Isaac when, standing before a thrifty, prosperous plant, one contemplates digging it up, beheading its stems, chopping its roots into pieces, and planting these melancholy fragments in a new and untried place in hope of a distant good. Yet with some plants it is essential to their health and as harmless a practice as cutting back a house plant.

One of the plants which not only may be divided but indeed must be divided if it is to retain its perfect health and vigor is perennial phlox; this should be divided every three years.

It is done in a very summary manner. Dig up a clump with a sharp spade. If you cannot disentangle the roots readily, cut the clump into pieces about as large as a man's hand. Each section should have plenty of roots and five or six stalks. Cut off the stalks and leaves and plant each section separately in the garden-beds. Put a little manure in the bottom of the hole, then a little soil, then the plant: fill in with soil carefully, press firmly, water well, and the thing is done. An old hand will accomplish the whole work with a spade in a very short time. Phlox may be divided quite as well in October, but September is better, because there will then be a few blossoms left as color labels, and one can weed out the magenta—that pariah among colors—and cast it without the gates.

There are other plants which, although division is not necessary to their health, may be made into twins and triplets in this simple and practical fashion. Among these are the German and Japanese iris, the funkia, or day-lily (of which only a strong, healthy clump should be divided, and each portion should contain several crowns), and the yellow day-lily (*Hemerocallis*).

How to Plant Bulbs

For planting in the open, the garden rule of four times the depth holds good for bulbs, and they should be set about as many inches apart as the bulb is deep. Most bulbs hate direct contact with manure; therefore, it is safer to put in a handful of sand when planting and set each bulb on this as on a cushion.

How to Remove the Winter Protection

This is done in February or March. March is the month when a garden form of "spring house-cleaning" is in order. Roses are still in their straw jackets, and the plants in garden-beds and borders are asleep, their feet snugly covered by winter blankets of stable litter or leaves. As soon as the weather permits this covering should be removed. If the "blanket" of mulch is kept on too long the plants, becoming overheated, start to grow, and when the covering is removed, finding chilly April weather when they had expected that of late May, they take cold as easily as incubator chicks or children kept in overheated rooms. To prevent this taking cold loosen the straw jackets and let the air circulate freely about the stems of your roses before removing the covering altogether. The scientific idea of winter protection is that of organized charity: to give help only when absolutely necessary and to withdraw it as soon as possible.

Garden books seem rather fond of advising the anxious inquirer to "dig in" or "fork in" manure that during the winter has been lying on the garden-beds—which is all very well and an excellent practice in beds where there are only shrubs or late-blooming plants, but where early-flowering plants are set—bulbs, dicentra, and the like—this is practically impossible. No plant likes to be disturbed when near its time of blooming, and how to dig manure into such a bed without disturbing the roots of the plants is a problem that would require the wisdom of the Egyptians, or rather that of Moses, who led the Israelites across on dry land and drowned the Egyptians on the same spot. Therefore, when your garden-beds are filled with early-flowering things lift the mulch off carefully with a broad-tined earth-fork. Do not have it all

carried away, but leave a small pile near the bed in a convenient place, and on very cold nights throw it lightly over the plants, removing it the next morning.

If there are no bulbs which might be disturbed, then manure should be dug in carefully about the roots of shrubs. One must remember that in a shrub, as in a tree, the spread of the roots is about equal to the spread of the branches, and that to do the most good the manure need not be dug in close to the stem of the plant. The Scriptural injunction in the matter of the fig-tree, to "dig about it and dung it," is excellent gardening, and, unless it interferes with other planting, all young trees and shrubs should have well-rotted manure dug in, and the soil made loose and light about the base—and March is the time to do it.

Care of Summer-Blooming Plants and Bulbs

All of the following plants should be allowed to rest during the winter months:

Fuchsia.—Into the cellar in November should go the fuchsias which have been blooming all summer in window-boxes and porch-boxes. During the winter give water very sparingly—even if the plants get so dry that they shed their leaves no harm is done. In March, bring up to the light, but do not repot until the plant shows signs of new growth.

Gloxinias.—Treat like tuberous begonias, decreasing the water-supply as the leaves begin to fall, and stop it when they have all departed, then put the plant in a dry, warm place for its winter sleep. Shake the tubers out of the old soil in the spring, pot freshly, and the plant will start into growth again.

Hydrangeas.—The pot-grown hydrangeas like a quiet winter, but not absolute rest-cure. Usually in September they have completed their growth, in November they should go into the cellar, and have during the winter just water enough to keep from shedding their leaves. Bring to the light in February.

Dahlias, Elephants' Ears (*Caladium*), *Gladioli, Cannas,* and other tender bulbs should be taken indoors for the winter. After the frost

has cut their tops lift the bulbs carefully with an earth-fork; spread them out to dry in an airy place. Then shake off the soil and store in baskets or slatted boxes (not in anything air-tight or they will decay), and put them in a dry, cool, airy cellar or closet. The ideal temperature for the winter storage of such bulbs is about forty degrees. Dahlias should be stored in sand, in a place where frost is excluded, and where they will have moisture enough to keep from shrivelling.

Tuberous Begonias.—These in October begin to show plainly that their season is over. Decrease the water-supply when the leaves begin to fall off, and when the stalks drop stop it altogether, and put the plants in the cellar or some other place where they will be safe from frost. In March they should be repotted, watered moderately until growth begins, then given abundance of water. Do not confound these tuberous begonias with the fibrous-rooted sort which are winter bloomers.

House Plants which have summered in the garden may be taken up and repotted as soon as the nights grow cool. Put bits of crock in the bottom of the pot for drainage, and use good, porous soil. Keep them in the shade for a few days until they have recovered from the change.

CHARTS OF ANNUALS, PERENNIALS, BULBS, FLOWERING TREES AND SHRUBS

GARDENER'S CALENDAR

CHARTS OF ANNUALS, PERENNIALS, BULBS, FLOWERING TREES AND SHRUBS

ANNUALS YOU CAN START IN FRAMES IN MARCH

NAMED IN THE ORDER THEY SHOULD BE PLANTED

NAME	HEIGHT	PREFERRED SOIL WHEN TRANSPLANTED	BLOOMING PERIOD	BEST COLORS
Stock (*Mathiola annua*)	1–1½ ft.	Rich loam and much moisture.	August until severe frost.	Salmon-pink, maroon, and white.
China Aster (*Calistephus hortensis*)	1½ ft.	Loam	July until frost	Comet Ostrich Feather, American Branching, and Daybreak are among the best varieties in pinks and lavenders.
Snapdragon (*Antirrhinum*)	½–2½ ft.	Any good garden soil	August to October	Carmine or pale pink blended with yellow.
Drummond's Phlox (*Phlox Drummondii*)	½–1½ ft.	Any garden soil	June to November	Salmon-pink, carmine-red, and carmine with a white eye.
Japan Pink (*Dianthus Heddewigi*)	6–8 in.	Any garden soil if well drained	July until frost	Salmon-pink.
Indian Pink (*Dianthus Chinensis*)	6–8 in.	Any garden soil if well drained	July until frost	Various reds.
Verbena	6–8 in.	Any soil, even if very dry	June to October	Salmon-pink and white.
Salpiglossis	3 ft.	Any good soil	July to October	Various reds, purples, and yellows.
Mourning-Bride (*Scabiosa*)	3 ft.	Any garden soil	June to November	Cherry-red.
Cosmos	7–8 ft.	Any garden soil	September until frost	Pink and white.
Coreopsis (*Calliopsis*)	3 ft.	Any garden soil	July to November	Dark maroon-red.
Petunia	1½–2 ft.	Any garden soil	June to November	Clear pink and violet-blue.

PERENNIALS WHICH WILL BLOOM FROM SEED THE FIRST YEAR

If Started Early Under Glass During March

NAME	HEIGHT	PREFERRED SOIL	SITUATION	BLOOMING PERIOD	BEST COLOR	REMARKS
Carpathian Harebell (*Campanula Carpatica*).	8–9 in.	Rich, well-drained loam and plenty of moisture.	Sun	June to November	Violet-blue	Pretty for carpeting or edging.
English Harebell (*Campanula rotundifolia*).	1 ft.	Rich, well-drained loam and plenty of moisture.	Sun	June to September	Violet-blue	Attractive in clumps.
Coreopsis grandiflora	2 ft.	Any soil	Sun or half-shade	June to September	Yellow	Extremely serviceable.
Oriental Larkspur (*Delphinium formosum*).	5–6 ft.	Sandy loam	Sun	June, July	Blue	Lovely in large numbers.
Chinese Larkspur (*Delphinium grandiflorum*).	2½–3 ft.	Sandy loam	Sun	July, August	Blue	Group with *Œnothera*.
Garden-Pink (*Dianthus plumarius*).	1 ft.	Sandy loam	Sun	July	Pink, white	Pretty for edging.
Gaillardia aristata, variety *grandiflora*.	1½–3 ft.	Soil light and well drained.	Sun	July, August	Yellow	Good for picking.
Linaria Dalmatica	3½–4 ft.	Light soil	Sun or shade	June and August	Yellow	Charming in masses.
Forget-Me-Not (*Myosotis palustris*).	8–10 in.	Any soil	Sun or half-shade	May, June, and September.	Blue	Variety *semperflorens* preferred.
Iceland Poppy (*Papaver nudicaule*).	1 ft.	Light loam	Sun	May, June, and September.	Orange-yellow.	Plant masses for best effect.
Pansy (*Viola tricolor*)	6 in.	Rich soil	Half-shade	May to November	Various	Plant a succession.

PERENNIAL PLANTS YOU CAN PLANT OUT EARLY

As Soon as Ground Can be Worked

NAME	HEIGHT	PREFERRED SOIL	SITUATION	BLOOMING PERIOD	COLOR	REMARKS
Achillea ptarmica, variety "The Pearl."	1½–2½ ft.	Any ordinary soil.....	Sun.....	June to October.....	White.....	Good for cutting.
Monk's-Hood (*Aconitum autumnale*).	4–5 ft.	Any ordinary soil.....	Sun or shade.....	Mid-July to mid-September.	Blue.....	*A. Napellus* also a good variety.
Anemone Japonica, variety "The Whirlwind."	3–3½ ft.	Rich loam.....	Sun or semi-shade..	October.....	White.....	Dislikes wind.
Hollyhock (*Althæa rosea*)...	5–6 ft.	Rich loam.....	Sun.....	July, August.....	Various.	
Columbine (*Aquilegia vulgaris*).	2–3 ft.	Rich loam.....	Sun.....	Mid-May to July...	Various.....	Foliage good.
Aster Novæ Angliæ.....	4–7 ft.	Any soil.....	Sun.....	September.....	Purple.....	Combine with *Boltonia* or Pink Phlox.
Astilbe Japonica.....	2–3 ft.	Any ordinary soil.....	Semi-shade.....	Mid-June to mid-July.	White.....	Good foliage.
Campanula Carpatica.....	1–1½ ft.	Rich, well-drained soil.	Sun.....	Late June to late August.	Blue.....	Good for edging.
Chrysanthemum, Pompon varieties.	2–3 ft.	Rich, well-drained soil.	Sun.....	October, early November.	Various.....	Good for cutting.
Coreopsis lanceolata.....	1–2 ft.	Any ordinary loam....	Sun.....	June to September..	Yellow.....	Very hardy.
Larkspur (*Delphinium hybridum*).	4–6 ft.	Sandy loam, well manured.	Sun or semi-shade..	June, July.....	Blue.....	Combine with *Œnothera* or *Lilium candidum*.
Scotch Pink (*Dianthus plumarius*).	1 ft.	Rich loam.....	Sun.....	June.....	Pink.....	Fragrant.
Helenium autumnale, variety *superbum striatum*.	4–6 ft.	Moist and rich loam..	Sun.....	August, September..	Terra-cotta..	Effective.
Yellow Day-Lily (*Hemerocallis fulva*).	3 ft.	Rich, moist loam.....	Sun or semi-shade..	June, early July....	Yellow.....	Combine with German Iris.
German Iris (*Iris Germanica*).	2–3 ft.	Any loam.....	Sun.....	Late May, June....	Various.	
Japanese Iris (*Iris lævigata*).	2–3½ ft.	Moist loam, well manured.	Sun.....	June, July.....	Various.....	Good for bog-gardens.
Perennial Lupine (*Lupinus polyphyllus*).	3–5 ft.	Any loam.....	Sun.....	June, July.....	Purple.	
Bee-Balm (*Monarda didyma*).	2–2½ ft.	Any soil.....	Sun or shade.....	Mid-June to mid-September.	Red.....	Combine with *Platycodon*.

Forget-Me-Not (*Myosotis palustris*, variety *semperflorens*).	8 in.	Rich, moist soil.....	Semi-shade or shade.	May to September..	Blue.....	Combine with Tulips.
Evening Primrose (*Œnothera glauca*, variety Fraser's).	2–3 ft.	Any loam.....	Sun.....	June to September..	Yellow.....	Good in many situations.
Peony (*Pæonia*).....	3–3½ ft.	Moist loam and cow manure.	Sun or semi-shade..	June.....	Various.	
Oriental Poppy (*Papaver orientale*).	2–3½ ft.	Rich loam.....	Sun.....	June.....	Scarlet.....	Combine with white.
Phlox paniculata.....	2½–3½ ft.	Rich soil.....	Sun.....	July to October....	Various.....	Plant in groups.
Platycodon grandiflorum....	2–3 ft.	Any soil.....	Sun or shade.....	July to October....	Blue.....	Spreads fast.
Primrose (*Primula Sieboldi*).	½–1 ft.	Light loam and leaf-mould.	Sun or shade.....	May.....	Various.....	Good edging.
Sage (*Salvia pratensis*).....	2–3 ft.	Any soil.....	Sun.....	June.....	Blue.....	Best in masses.

A PLANTING CHART OF BULBS AND PERENNIALS

BY ROBERT CAMERON, HEAD GARDENER OF THE HARVARD BOTANIC GARDEN AND FRANCES DUNCAN

April and May blooming dates are given for the latitude of Boston. 6 days is the usual allowance for every degree of latitude

* 1a—designates first week in March; 2a, second; 3a, third; 4a, fourth. 1b, first week in April; 2b, second; 3b, third; 4b, fourth

BOTANICAL NAME	COMMON NAME	* DURATION OF BLOOMING	COLOR	HEIGHT	PREFERRED SOIL	PREFERRED SITUATION	REMARKS
Adonis vernalis...	Spring Adonis...	3b–4b	Yellow	6–9 in.	Rich, deep soil.	Sun.....	Choice perennial. Do not disturb often. Plant in fall or spring. Prop. by seed or root-division.
Arabis albida.....	Rock-Cress.....	3b–4b	White.....	4–8 in.	Ordinary garden soil; will grow in poor soil.	Sun.....	Good for margin of border. Plant either in fall or spring.
Chionodoxa	.....	4a–4b	Blue.....	3–4 in.	Ordinary soil.	Half-shade.	Bulbous plant. Beautiful in the rock-garden or border. Plant Oct. to Nov. Do not disturb for several years.
C. Luciliæ	Glory-of-the-Snow	1b–4b	Blue	3–4 in.	Well-drained soil.	Sun.....	Transplant every third or fourth year. Plant in fall. Prop. by seed or bulbules.
Crocus (in var.) ..	Crocus. (In sheltered spots.)	2a–4b	Various, white, yellow, purple.	4–6 in.	Ordinary garden soil.	Sun.....	Beautiful when planted in the grass. Comes up the second year if leaves are allowed to ripen. Plant Oct. to Nov. Set bulbs 3–4 in. deep. Do not disturb for several years. Prop. by seed and cormels.
Eranthis hyemalis	Winter Aconite..	2a–4a	Yellow	3–8 in.	Ordinary soil.	Half-shade.	In warm position makes a patch of vivid yellow in early spring. Plant in fall. Leave bulbs undisturbed.
Erythronium Americanum.	Adder's-Tongue..	3b–4b	Yellow	3–5 ft.	Light peaty soil.	Half-shade.	Good for margin of Rhododendron-bed. Plant in fall. Do not disturb often. Prop. by seed or offset.
E. dens-canis	Dog's-Tooth Violet.						
Fritillaria imperialis.	Crown Imperial..	1b–4b	Var. from yellow to crimson.	2–3 ft.	Good, rich soil.	Sun or half-shade.	Bulbous plants growing rapidly when frost is out of ground. Plant in fall. Prop. by bulbules and seeds.
F. meleagris.....	Snake's-Head, Checkered Lily.	1b–4b	.....	12 in.	Good, rich soil.	Sun or half-shade.	

Galanthus nivalis..	Snowdrop. (In sheltered spots.)	2a–3b	White.....	4–6 in.	Any good soil.	Sun or half-shade.	Plant some in sheltered spots, and they will bloom first week in March; others will follow. Plant bulbs 4 in. deep, Oct. to Nov. Do not disturb for several years. Transplant every fourth year. Prop. by seed and bulbules.
Hepatica	Hepatica, Liverleaf.	3a–4a	Blue, purple, or white.	6 in.	Rich, well-drained soil.	Shade	Does well under trees. Fall or spring. Keep buds and leaves level with top of soil. Do not disturb.
Leucojum vernum.	Snowflake	2b–4b	White.....	12–18 in.	Ordinary soil.	Sun or half-shade.	Excellent border plant. Set out in fall. Prop. by seed and bulbules.
Muscari botryoides.	Grape-Hyacinth.	3b–4b	Blue.....	6–8 in.	Ordinary soil.	Sun.....	Beautiful in little masses in border. Do not disturb often. Plant in fall. Prop. by seed and bulbules.
Scilla	Squill, Wild Hyacinth, Bluebell.	2a–4a	Blue	6 in.	Ordinary soil.	Sun or half-shade.	Plant in large colonies. They are beautiful in early spring. Plant in fall, setting bulbs 4 in. deep. Do not disturb for several years. Prop. by seed and bulbules.
S. Sibirica.....	Siberian Squill ..	1b–4b	Blue	6 in.	Ordinary soil.	Sun or shade.	

HERBACEOUS PERENNIALS BLOOMING IN MAY AND JUNE

* 1c—designates first week in May; 2c, second; 3c, third; 4c, fourth. 1d, first week in June; 2d, second; 3d, third; 4d, fourth

BOTANICAL NAME	COMMON NAME	* DURATION OF BLOOMING	COLOR	HEIGHT	PREFERRED SOIL	PREFERRED SITUATION	REMARKS [Following plants may be set out either in spring or fall. Prop. by both seed and root-division, except where noted.]
Adonis vernalis	Spring Adonis	1c–3c	Yellow	As above	As above	.....	See chart for March and April.
Alyssum saxatile	Golden Tuft	2c–4c	Yellow	12 in.	Light garden soil.	Sun	Very showy perennials. Splendid in rock-garden. Plant in spring.
Anemone Canadensis.	Canadian Anemone.	2d–4d	White	12–18 in.	Any ordinary soil.	Sun or shade.	Spreads rapidly.
Anthericum liliastrum.	St. Bruno's Lily	3d–4d	White	12–18 in.	Good rich soil.	Sun	Border plant.
Aquilegia Canadensis.	Common Wild Columbine of North America	2d–4d	Yellow	12–18 in.	Ordinary garden soil.	Sun or half-shade.	Columbines are among the daintiest and most delicately graceful of plants, charming in the border.
A. chrysantha	.....	3d–4d	Yellow	2–2½ ft.	Light, natural soil.	Sun.	
A. cærulea	.....	2d–4d	Blue	1½–2 ft.	Light, natural soil.	Sun.	
Arabis albida	.....	1c–3c	White	.....	.....	.....	See chart for March and April.
Astilbe Chinensis.	.....	3d–4d	Pink	15–18 in.	Well enriched.	Sun	Good border plant. Astilbe and Aruncus are much alike and often confused. Will stand any amount of cold weather.
A. Japonica	.....	2d–4d	White	15–18 in.	Well enriched.	Sun.	
Aubrietia deltoidea.	.....	1c–4c	Blue	4–6 ft.	Light garden soil.	Sun	Beautiful dwarf plants. Excellent for margins of border or rock-garden.
Callirrhoe involucrata.	Poppy-Mallow	1c–2c	Crimson	6–8 in.	Light, warm soil.	Sun	Trailing plant.
Campanula	Bellflower	3d–4d					
C. glomerata	.....	.....	Blue	2–2½ ft.	Rich soil	Sun	Good border plant. This variety very variable.
C. persicifolia	.....	2d–4d	Blue	2–3 ft.	Rich soil	Sun	Splendid border plant.
Chionodoxa	.....	2d–4d	Blue	.....	.....	.....	See foregoing chart.
Clematis recta	.....	2d–4d	White	3–4 ft.	Rich soil	Sun	One of the best border plants; fragrant. Dig deep when setting out; the roots need plenty of room.
Convallaria majalis.	Lily-of-the-Valley.	2c–2d	White	8–12 in.	Deep, rich soil.	Shade or half-shade.	Good for shady places and under trees. An old garden favorite. Prop. by crowns or pips.

Corydalis nobilis..	Allied to Dutchman's-Breeches.	2c–4c	Yellow	8–12 in.	Rich, well drained.	Sun.....	Border plant of easy culture.
Delphinium hybridum.	Larkspur	3d–4d	Blue	4–6 ft.	Rich, well drained.	Sun.....	Stately plants. Invaluable in gardens for their colors.
D. formosum.....	.....	3d–4d	Blue, indigo margins.	4–5 ft.	Rich, well drained.	Sun.....	Stately plants. Invaluable in gardens for their color. Mulch in late fall for slight winter protection.
Dianthus barbatus.	Sweet-William...	2d–4d	Various ...	12–18 in.	Light, rich soil.	Sun.....	One of the oldest garden flowers, none the less charming for all the newer ones.
D. deltoides	Maiden-Pink	1d–4d	Flesh-color.	6–8 in.	Light, rich soil.	Sun.....	One of the prettiest border Pinks, making neat mats of foliage and bearing profusely the little bright flowers.
D. plumarius	Common Grass or Garden Pink, Scotch Pink, Pheasant's-Eye Pink.	2d–4d	White and purple.	8–12 in.	Light, rich soil.	Sun.....	Used in old gardens as edging for beds—good today for same purpose; also for rockery.
D. superbus.....	.....	2d–4d	White.....	6–8 in.	Light, rich soil.	Sun.....	Good for rockery.
Dicentra spectabilis.	Bleeding-Heart..	3c–2d	Rosy purple.	15–24 in.	Light, warm soil.	Sun.....	An old garden favorite and a graceful border plant.
Dictamnus fraxinella.	Gas-Plant, Burning-Bush, Fraxinella, Dittany	2d–4d	Purple....	12–15 in.	Rich, warm soil.	Sun.....	A plant of permanent beauty in border. It will outlive several generations.
Erythronium Americanum.	Dog's-Tooth Violet, Adder's-Tongue.	1c–2c	Yellow	3–5 in.	Light, rich soil.	.....	See chart for March and April.
E. dens-canis	European species of preceding.	1c–2c	Rosy purple and various.	.....	.....	.....	See chart for March and April.
Fritillaria meleagris.	Snake's-Head, Checkered Lily.	1c–2c	Crimson to yellow.	.....	.....	.....	See chart for March and April.
Heuchera sanguinea.	Coral-Bells, Crimson-Bells.	3d–4d	Crimson...	12–15 in.	Light, rich soil.	Sun.....	Good for margins—resembles Bishop's-Cap.
Iberis sempervirens.	Candytuft	2c–4c	White.....	8–12 in.	Light, well drained.	Sun.....	Showy border plant; excellent for rockery.
Iris cristata.....	A dwarf variety.	2c–4c	Pale blue..	6–8 in.	Moist soil....	Sun.....	A very beautiful dwarf Iris. Plant in fall.
I. Germanica.....	German Iris	1d–4d	Variety of colors.	12–18 in.	Rich, moist soil.	Sun or half-shade.	These Irises grow well in almost any situation.
I. pumila.....	.....	3c–4c	Purple	6–8 in.	Moist soil....	Sun.....	Showy dwarf plant. Set out in fall.
Leucojum vernum.	Spring Snowflake	1c–2c	White.....	.....	.....	.....	See foregoing chart.

HERBACEOUS PERENNIALS BLOOMING IN MAY AND JUNE—(CONTINUED)

BOTANICAL NAME	COMMON NAME	*DURATION OF BLOOMING	COLOR	HEIGHT	PREFERRED SOIL	PREFERRED SITUATION	REMARKS [Following plants may be set out either in spring or fall. Prop. by both seed and root-division, except where noted.]
Muscari botryoides.	Grape-Hyacinth.	1c–3c	Blue	.....	.....	.....	See foregoing chart.
Narcissus.....	Narcissus—genus includes Daffodils and Jonquils.	1c–4c	Yellow.....	12–15 in.	Rich, light soil.	.....	Narcissus includes some of the most charming of spring-flowering bulbs. Used in beds and borders and can be naturalized in the grass. Plant in autumn 6 in. deep. Prop. by seed and bulbules.
Pæonia vulgaris and hybrids.	Common Peonies.	1d–4d	Many colors, rose, white, and crim.	2–3 ft.	Deep, rich soil.	Sun.....	Peonies are a splendid family—lusty, beautiful, free from insects and with great beauty of coloring. Plant in fall.
Papaver orientale..	Oriental Poppy..	1d–3d	Red.....	2–3 ft.	.....	Sun.....	Very brilliant plants.
Pentstemon	Pentstemon.....	2d–4d	Purple	12–15 in.	Rich, light soil.	Sun.....	All Pentstemons are good in border—a typical American genus.
Phlox ovata.....	.....	3d–4d	Pale purple.	15–18 in.	Rich, light soil.	Sun.....	Good border plant.
P. procumbens....	.....	1c–3c	Flesh-color	6–in.	Light, warm soil.	Sun.....	Charming little plant. Good for margins and rock-gardens. Plant in autumn.
P. amœna	.....	.....	.....	.....	.....	Sun.....	Plant in autumn.
P. stellaria.....	.....	2c–4c	Pale blue..	8 in.	Light, warm soil.	Sun.....	Plant in autumn.
P. subulata	Ground-Pink, Moss-Pink.	2c–1d	Pink.....	6 in.	Light, warm soil.	Sun.....	A much-prized old garden plant.
Polemonium reptans.	.....	3c–4c	Blue.....	6–8 in.	Good, rich, garden soil	Sun.....	Interesting dwarf plant. Set out in fall.
Saxafraga cordifolia.	Saxifrage.....	1c–4c	Purple.....	12–18 in.	Rich soil.....	.....	Cover leaves in winter with hay. Set out in fall.
S. crassifolia.....	.....	2c–4c	Purple.....	12–18 in.	Rich soil.....	.....	Cover leaves in winter with hay. Set out in fall.
S. ligulata.....	.....	1c–4c	Purple.....	12–18 in.	.....	.....	Cover leaves in winter with hay. Set out in fall.
Scilla Sibirica....	.....	1c–2c	.....	.....	.....	.....	See foregoing chart for Scilla.
Spiræa filipendula.	.....	.....	White.....	12–18 in.	Rich, deep soil.	Sun.....	Fine in a large mass.
Stellaria Holostea.	Easter-Bell.....	2c–4c	White.....	12 in.	Light soil....	.....	Good for carpeting and dry banks where grass does not grow well. Plant in fall.
Tulipa.....	Tulips.....	1c–4c	Various....	12–18 in.	Rich soil.....	Sun.....	Set out tulip bulbs in fall, 6 in. deep. Prop. by seed and bulbules.
Viola cornuta	Horned Violet, Bedding Pansy	3c–4d	Blue.....	6–8 in.	Rich soil.....	.....	Attractive in masses.

HERBACEOUS PERENNIALS FOR SUMMER BLOOMING

*1e—designates first week in July; 2e, second; 3e, third; 4e, fourth. 1f, first week in August; 2f, second; 3f, third; 4f, fourth

BOTANICAL NAME	COMMON NAME	*DURATION OF BLOOMING	COLOR	HEIGHT	PREFERRED SOIL	PREFERRED SITUATION	REMARKS [Following, except where noted, may be planted either in spring or fall. Prop. by both seed or root-division, except where noted.]
Aconitum uncinatum.	Wild Monk's-Hood.	1f–4f	Blue.....	4–4½ ft.	Deep, rich soil.	Sun.....	Showy. Blooms last many weeks.
Alstræmeria aurea	.....	1e–2f	Orange....	2–3 ft.	Light, warm soil.	Sun.....	Plants with tuberous roots and treated as bulbs.
Aquilegia chrysantha.	Columbine.....	1e–3e	Yellow....	.....	.....	.....	Give slight protection with leaves in winter. Set out in spring. Dig deep and give plenty of water.
Althæa rosea.....	Hollyhock.....	1e–4e	Various colors.	4–6 ft.	Warm soil.	Sun.....	Plant in spring.
Aster, Perennial..	.....	2f–4f	Various colors.	4–4½ ft.	Ordinary....	Sun and half-shade.	No garden should be without them.
Boltonia latisquama.	.....	2f–4f	Blue and violet.	4–5 ft.	Light, rich soil.	Sun.....	Showy, lasting in bloom for many weeks.
Campanula Carpatica.	Bellflower.....	1e–4e	Deep blue..	6–9 in.	Light, rich soil.	Sun.....	Excellent for margin of border or rockery.
C. rapunculoides..	.....	1e–4e	Blue.....	18–24 in.	Ordinary garden soil.	Sun or shade.	Spreads very rapidly.
Chelone Lyoni....	Turtle's-Head...	2f–4f	Reddish purple.	2–3 ft.	Moist, rich soil.	Sun or shade.	A heavy mulch of manure during the growing season is beneficial. Plants dislike drought.
Clematis heracleæfolia, var. *Davidiana.*	.....	2f–4f	Blue.....	4–5 ft.	Deep, rich soil.	Sun.....	Strong-growing; leaves larger than in any other Clematis.
Coreopsis lanceolata.	Coreopsis.....	1e–4e	Golden yellow.	18–24 in.	Rich soil, will grow in heavy soil.	Sun.....	Familiar border plant. Blooms long if cut. Good for rich golden color. Sow where plants are to grow.
Delphinium Chinense.	Larkspur.....	1e–4e	Blue.....	12–18 in.	Light, warm soil.	Sun.....	Dwarf, compact plant. Transplanting should be in early spring.
D. formosum.....	Larkspur.....	1e–4e	Blue.....	.....	.....	.....	See foregoing chart for Delphinium.
D. hybridum.....	.....	1e–4e	Blue.....	4–6 ft.	.....	.....	See foregoing chart.
Dianthus barbatus.	Sweet-William...	1e–3e	Various colors.	12–18 in.	.....	.....	See foregoing chart.
Funkia grandiflora.	Day-Lily.....	2f–4f	White.....	12–20 in.	Rich, deep soil.	Sun or shade.	Beautiful white flowers; longer and larger than *A. subcordata.*

HERBACEOUS PERENNIALS FOR SUMMER BLOOMING—(CONTINUED)

BOTANICAL NAME	COMMON NAME	* DURATION OF BLOOMING	COLOR	HEIGHT	PREFERRED SOIL	PREFERRED SITUATION	REMARKS [Following, except where noted, may be planted either in spring or fall. Prop. by both seed or root-divsion, except where noted.]
Helianthus rigidus.	Sunflower.....	1f–4f	Yellow....	3–4 ft.	Rich, deep soil.	Sun.....	One of the best perennial Sunflowers; striking in the border.
Helenium autumnale.	Sneezeweed.....	2f–4f	Yellow....	4–6 ft.	Rich, deep soil.	Sun.....	Very striking in border. Good in background.
Iris lævigata (I. Kæmpferi).	Japanese Iris....	1e–4e	Var. pure white, reddish to deep violet, indigo.	18–30 in.	Moist, rich soil.	Sun.....	Iris is semiaquatic and requires an abundance of water. Very beautiful plants.
Kniphofia Pfitzerii.	Related to Red-Hot Poker Plant.	1f–4f	Red.....	3–4 ft.	Light, warm soil.	Sun.....	Most abundant bloomer of its kind.
Lathyrus latifolius	Everlasting Pea.	1f–4f	Rose.....	6–8 ft.	Deep, rich soil.	Sun.....	Showy Pea-flowered plant.
Liatris cylindrica.	Vars. of Blazing-Star, Button-Snakeroot.	3f–4f	Red.....	2–3 ft.	Light, rich soil; will grow in poor soil.	Sun.....	Thrive best in rich soil, but will produce flowers on poorer diet than most garden plants. Useful in border. Prop. by offset.
L. scariosa.....	.....	2f–4f	Bright pink.	2–3 ft.	.....	Sun.	
Lilium speciosum, var. *rubrum.*	.....	2f–4f	Red.....	3–4 ft.	Deep, light soil.	Sun and half-shade.	One of the most satisfactory of the Lilies. Plant bulbs in fall. Prop. by seed or bulbules.
L. superbum.....	American Turk's Cap.	1f–4f	Red and orange.	4–6 ft.	Peaty soil ...	Half-shade.	Tall and showy. Division of older bulbs.
Lobelia cardinalis	Cardinal-Flower.	1f–4f	Bril'nt cardinal.	2–3 ft.	Moist soil ...	Sun or half-shade.	
Lychnis Chalcedonica.	Maltese Cross, Jerusalem Cross, Scarlet-Lightning.	.....	.....	.....	.....	.....	See foregoing chart for Lychnis.
Lysimachia clethroides.	.....	1e–3e	White.....	2–2½ ft.	Moist soil....	Sun or shade.	Good border plant; good also for cutting.

Œnothera Missouriensis.	Related to Evening-Primrose.	1f–4f	Yellow....	6–9 in.	Light, warm soil.	Sun.....	Very hardy. Extremely large yellow flowers; showy plant, trailing in habit.
Pentstemon digitalis.	Vars. of Beard-tongue.	1e–3e	White.....	.....	.....	.....	See foregoing chart.
Phlox paniculata..	Perennial Phlox..	1e–4f	Various colors.	3–4 ft.	Well enriched.	Sun.....	Parent of many varieties. Perennial Phloxes are interesting and handsome. Should be in every garden. Divide plants every three years.
Platycodon grandiflora.	Chinese (or Japanese) Bellflower or Balloon-Flower.	1f–4f	Blue.....	3–3½ ft.	Deep, rich soil.	Sun.....	Showy plant.
Rudbeckia laciniata, var. Golden-Glow.	Coneflower.....	1f–4f	Yellow....	4–6 ft.	Ordinary garden soil.	Sun.....	A deservedly popular late-flowering garden plant.
R. speciosa.....	.....	2f–4f	Yellow....	2–2½ ft.	Deep, rich soil.	Sun.....	Fine border plants.
Scabiosa Caucasica.	.....	1e–4e	Blue.....	12–18 in.	Light, warm soil.	Sun.....	Fine border plant. Set out in spring.
Sedum spectabile..	Showy Sedum...	1f–4f	Pink.....	15–18 in.	Light, rich soil.	Sun.....	Showy plant.
Spiræa palmata..	A herbaceous Spiræa.	1e–2e	Pink.....	2–2½ ft.	Moist soil....	Sun or shade.	Graceful plant.
Statice latifolia...	Sea-Lavender....	1f–4f	Lavender..	18–24 in.	Deep, rich soil.	Sun.....	Good for cutting.
Stokesia cyanea...	Stokes' Aster....	1f–4f	Blue.....	12–18 in.	Warm, light soil.	Sun.....	A lovely native plant; rarest of American hardy perennial herbs.

HERBACEOUS PERENNIALS WHICH BLOOM IN SEPTEMBER AND OCTOBER

*1g—designates first week in September; 2g, second; 3g, third; 4g, fourth. 1h, first week in October; 2h, second; 3h, third; 4h, fourth

BOTANICAL NAME	COMMON NAME	*DURATION OF BLOOMING	COLOR	HEIGHT	PREFERRED SOIL	PREFERRED SITUATION	REMARKS [Except as noted, plants may be set out in spring or autumn. Prop. by seed or root-division except in a few cases.]
Anemone Japonica (and varieties).	Japanese Anemone.....	3g–4h	Rose-colored.	4–6 ft.	Deep, rich, well drained.	Sun or shade.	This plant and all its varieties are excellent. Among the most beautiful of perennials. Prop. also by root-cuttings.
Aster.....	Aster, Michaelmas-Daisy.	1g–4g	Various, white, rose, blue.	4–4½ ft.	Ordinary garden soil.	Sun and half-shade.	No garden should be without some of our native kinds.
A. Tataricus.....	.....	1h–4h	Purple.....	4–5 in.	Deep, rich soil.	Sun.....	Large flowers; very showy.
Clematis paniculata.	.....	1g–4g	Blue.....	4–5 ft.	Deep, rich soil.	Sun.....	Good for its late flowering.
Colchicum speciosum.	Aut'n Crocus, Meadow-Saffron.	3g–4g	Violet.....	.....	Deep, rich soil.	Sun or half-shade.	Bulbous plant; very showy when grown in a mass. Set out in late summer. Prop. by seed or offset.
Conoclinium cœlestinum.	Mist-Flower.....	1g–4g	Blue or violet.	12–18 in.	Light, warm soil.	Sun.....	Useful for cutting.
Helianthus Orgyalis.	Sunflower.....	1g–4g	Yellow....	6–8 ft.	Rich soil.....	Sun.....	Handsome and attractive foliage.
H. Maximiliani..	.....	3g–3h	Deep yellow.	6–8 ft.	Rich soil.....	Sun.....	Fine heads. Useful for its late flowering.
Kniphofia aloides..	Red-Hot Poker Plant, Torch-Lily, Flame-flower.	2g–4h	Scarlet....	3–4 ft.	Deep, rich soil.	Sun or half-shade.	Many showy varieties of this plant.
Lespedeza Sieboldii.	Bush-Clover.....	2g–4h	Purple.....	4–5 ft.	Deep, rich soil.	Sun.....	Splendid late-flowering plant; flowers profusely.
Rudbeckia laciniata, "Golden-Glow."	.....	1g–2g					
Sedum Ewersii...	.....	1g–4g	Violet.....	6–8 in.	Light soil....	Sun.....	Good for margin of border.
S. Sieboldii.....	.....	1g–4g	Pink.....	4–6 in.	Light soil....	Sun.....	Good for rockery. To the Sedums belong Stonecrop and Live-Forever.
Tricyrtis hirta....	Toad-Lily.....	1h–4h	Pink.....	3–4 ft.	Light, warm soil.	Sun.....	Lily-like flowers, among the last to bloom. Set out in spring.

CHART OF FLOWERING TREES AND SHRUBS

BY FRANCES DUNCAN

Forest trees are not included in this merely suggestive list. The time of blossoming is only approximate and for latitude of New York

I. SPRING

BOTANICAL NAME	COMMON NAME	TIME OF BLOSSOMING	COLOR	HEIGHT	SOIL AND SITUATION	ADDITIONAL VALUE	REMARKS
Amelanchier botryapium.	Common Dwarf Juneberry, Shadbush, Snowy Mespilus.	Early May	White.....	Shrub or small tree.	Any soil; grows in poor land.	Foliage golden yellow in autumn.	Small tree, very lovely in early spring. Good for undergrowth in forest. *A. Canadensis* earlier.
Amygdalus. See *Prunus.*							
Azalea amœna (A. Indica amœna).	.....	Late April, early May.	Brilliant crimson.	1–3 ft.	Ordinary garden soil; prefers moisture.	Foliage evergreen.	One of the most brilliant of shrubs. Small flowers make it a mass of intense color.
A. Canadensis (Rhodora Canadensis).	Rhodora.....	Early May.	Pale mauve.	1–3 ft.	Good soil; moisture.		Delicate, fragile-looking shrub. Blooms profusely before bearing leaves.
A. Ghent Hybrids (Rhododendron azalea).	Ghent Azaleas...	Mid-May..	Various, orange dominant, vars. white, yellow, rose, cardinal.	2–8 ft.	Ordinary garden soil; hates limestone; moist soil preferred.	.....	Azaleas, or deciduous rhododendrons, are the most vivid colorists of all spring-flowering shrubs. Hardy, slow-growing. The native *A. nudiflora* (Pinxter Flower, Wild Azalea), deep pink, and *A. calendulacea*, orange or yellow, are almost as lovely as the cultivated sorts.
A. Sinensis (A. mollis).	Chinese Azaleas..	May.....	Various, orange, flame-color, sal.	2–7 ft.	Ordinary garden soil; hates limestone; moist soil preferred.	.....	Earlier than preceding, larger flowers, dwarfer growth, less charming in habit.
Cerasus. See *Prunus.*	Cherry.						
Cercis Canadensis	Judas-Tree, Redbud.	Late April, early May.	Rose-purple.	20–25 ft.	Ordinary garden soil; does best in rich.	.....	Small tree. Pale-gray stems completely wreathed in tiny flowers. Good for planting at edge of woodland; gives good effect from distance; may be associated with Halesia and *Cornus florida. C. Japonica* a trifle later.

CHART OF FLOWERING TREES AND SHRUBS—(CONTINUED)

BOTANICAL NAME	COMMON NAME	TIME OF BLOSSOMING	COLOR	HEIGHT	SOIL AND SITUATION	ADDITIONAL VALUE	REMARKS
Cornus florida....	Dogwood.....	May.....	White.....	10–25 ft.	Ordinary soil, sun or shade; thrives in swampy ground.	Brilliant color in autumn; also scarlet fruit.	Common Dogwood. One of the most beautiful of early-flowering trees.
C. florida, var. *rubra*.	Red-Flowering Dogwood.	.....	Rose.....	.....			Var. *rubra* is a charming form of preceding. "Flowers," when fully opened, suggest wild roses.
C. mas (C. mascula).	Cornelian Cherry.	March, early April.	Yellow.....	20 ft.	Any soil.....	Scarlet berries; brilliant fall color.	Earliest of trees. Pale-brown branches, delicate yellow flowers.
Cratægus in var..	Thorns, including Hawthorn.	.....	White, scarlet-rose.	10–20 ft.	Ordinary soil and position; will grow in clay and poor soil.	Scarlet fruit in autumn; brilliant coloring.	Strikingly beautiful family, which varies almost infinitely; blooms from early May until mid-June. *C. coccinea* (Scarlet Thorn), early May, white. Among best are *C. oxyacantha* (English Hawthorn) and its double white, pink, and scarlet vars., especially *C. oxyacantha flore pleno Paulii* (Paul's Hawthorn), and the Cockspur Thorn, *C. crus-galli*.
Cydonia. See *Pyrus*.							
Daphne cneorum.	Daphne.....	May.....	Rose.....	1 ft.	Light soil.....	Blooms intermittently all summer.	Creeping evergreen Daphne, very fragrant, making a dense mat of stiffly upright, rose-colored flowers; charming for rock-gardens.
D. Genkwa.....	Japanese Daphne.	End April, May.	Lavender..	1½–3 ft.	Light soil.....	.....	Small upright shrub. Flowers appear before leaves and are delicately fragrant. A dainty little shrub.
D. Mezereum.....	Daphne, Spurge-Laurel, Mezereon.	Late Mar., April.	Deep rose.	2–4 ft.	Light soil.....	.....	Earliest of shrubs. Slender stems thickly set with flowers, Hyacinth fashion.
Deutzia.....	.....	Late May.	White.....	2–3 ft.	Good, well drained.	Graceful habit..	Well-known shrubs. Good for border planting.
Exochorda grandiflora.	Pearl-Bush.....	Mid-May..	White.....	6–8 ft. rarely 15	Ordinarily good soil.		Flowers appear with leaves in great profusion.
Forsythia viridissima.	Golden Bell.....	April.....	Yellow....	6–10 ft.	Ordinary soil...	.....	Familiar shrub. A mass of golden yellow in early spring; comes out whenever a bit of favorable weather occurs, *F. viridissima*, strong, upright, earliest; *F. suspensa*, drooping habit, later blooming; *F. intermedia*, between.

Halesia tetraptera..	Snowdrop-Tree..	Late April, early May.	White.....	15–20 ft.	Ordinary soil, shaded situation or sun.	.....	Good companion for Judas-Tree; covered with Snowdrop-like flowers.
Jasminum nudiflorum.	Jessamine.....	Mar., Apr.	Yellow	1–5 ft.	Sheltered position for early bloom.	.....	Earliest of shrubs. May be trained against wall. Blooms nearly all winter south of Washington.
Kerria Japonica	Globe-Flower, or Corchorus.	Early May	Yellow	4–8 ft.	Ordinary good soil, partial shade.	Green stems effective in winter.	Thoroughly satisfactory shrub, long in cultivation.
Laburnum vulgare (Cytisis laburnum).	Common Laburnum, or Goldenchain.	Mid-May..	Yellow	20 ft.	Any well-drained soil, including limestone.	.....	An old garden denizen.
Lonicera fragrantissima.	Upright Honeysuckle.	Late Mar., April.	White and pale pink	4–5 ft.	Good soil; sun..	.....	Dense, bushy shrub. Vigorous grower; flowers very fragrant.
L. Tatarica.....	.....	Mid-May..	Pink to white.	3–10 ft.	Good soil; sun..	Dull red berries in summer.	Upright Honeysuckles are good all-round shrubs. Decorative from flowering-time until fruit dulls in October. Good sorts are *L. Morrowii* and *L. Ruprechtiana.*
Magnolia conspicua.	Chinese Magnolia, or Yulan-Tree.	Mid-Apr...	Cream-white.	10–20 ft.	Rich soil.....	.....	Most striking of early-flowering trees. Flowers large and very beautiful.
M. Lennei.....	Lenné's Magnolia.	Early May	Dark claret, pearl-color inside.	10–20 ft.	Rich soil.....	.....	Great bell-shaped flowers; very striking.
M. stellata.....	Hall's Magnolia.	Late Mar., early April.	Pure white.	6–10 ft.	Rich soil, rather sandy.	.....	Shrubby tree of rare beauty. Ray-like flowers in great profusion.
Malus. See *Pyrus.*							
Prunus Amygdalus Japonica flore pleno (Amygdalus fl.pl.).	Flowering Almond.	Early May	Rose.....	4 ft.	Light soil.....	.....	Old-fashioned flowering Almond.
P. pendula (Cerasus Japonica rosea pendula)	Japanese Weeping Rose-Flowered Cherry.	Late Apr., early May.	Pale rose..	5–20 ft.	(All Prunuses like lime).	.....	Very lovely lawn-tree of much delicacy of habit. Covered in late April with small, delicate flowers.
P. Persica, var. *camelliæflora plena.*	Crimson Peach...	Early May	Brilliant carmine.	Small tree.	Well-drained soil.	.....	Stiffly upright tree. Most brilliant in early spring. Var. *camelliæflora alba plena*, white.

CHART OF FLOWERING TREES AND SHRUBS—(CONTINUED)

BOTANICAL NAME	COMMON NAME	TIME OF BLOSSOMING	COLOR	HEIGHT	SOIL AND SITUATION	ADDITIONAL VALUE	REMARKS
Pyrus Halliana (P. Parkmani, P. Malus Haliliana, Malus Halliana).	Japanese Flowering Apple; Hall's, also Parkman's Flowering Apple.	May.....	Rose.....	6–20 ft.	Ordinary soil. Pyrus will bloom in poor soil.	Brownish red fruit in autumn.	Flowering apples are a beautiful race. Especially lovely are *P. floribunda*, *P. Ioensis*, *P. Toringo*.
P. Japonica (Cydonia Japonica).	Japanese Quince.	Late Apr., early May.	Vivid scarlet; vars. in white, rose, salmon.	3–6 ft.	Any soil; sun...	Foliage deep bronze-red in autumn.	Scarlet-flowering variety; an old favorite. Var. *Maulei*, bright orange-scarlet; var. *rosea plena*, rose, semi-double; var. *umbilicata*, rose-red flowers.
Pæonia Moutan..	Tree-Peony	Mid-May..	Various, white, rose, crimson.	3–6 ft.	Deep, rather moist soil.	.....	Strikingly handsome shrubs. Earlier than herbaceous Peonies; flowers 6–9 in. across.
Rhodora. See *Azalea Canadensis*.							
Ribes aureum....	Golden Currant, Missouri Currant.	Late Apr., early May.	Yellow	4–6 ft.	Ordinary soil.	Black fruit succeeds blossoms.	Sturdy little shrub. Flowers of Buttercup-yellow.
Rhodotypos kerrioides.....	.....	Early May	White.....	4–6 ft.	Ordinary soil...	Black berries in autumn.	Good for shrubbery and roadside planting.
Salix vitellina....	.....	.....	Yellow stems.	.....	.....	.....	See chart for winter effects.
Spiræa arguta....	.....	Early May	White.....	4–7 ft.	Ordinary soil...	.....	Blooms very profusely.
S. prunifolia.....	Bridal-Wreath...	Late Apr., early May.	White.....	4–7 ft.	Ordinary soil...	Good color in autumn.	Old favorite in gardens; not so good as *S. arguta* or *S. Thunbergii*.
S. Thunbergii....	Thunberg's Spiræa.	Apr., early May.	White.....	4–6 ft.	Ordinary soil...	Good color in autumn.	Earliest of Spiræas. Very small flowers whose bloom lingers. One of the best. Foliage good.
Styrax Americana	Storax.....	Late May..	White.....	6–10 ft.	Ordinary soil...	White fruit in autumn.	Blooms profusely. Flowers suggest orange-blossoms.
Syringa.....	Lilac.....	May.....	Purple, white, red, lavender.	6–10 ft.	Rich soil.....	.....	*S. oblata*, earliest; *S. Josikæa*, latest. Many varieties of Syringa. Old *S. vulgaris* and *vulgaris alba* still good.
Viburnum prunifolium (V. pyrifolium).	Black Haw, Stag-Bush.	Late May..	White.....	15 ft.	Ordinary soil, rather moist.	Black fruit in autumn.	Flat cluster of white flowers. *V. opulus sterilis*, Common Snowball, and *V. plicatum*, Japanese Snowball, bloom late in May.
Weigelia (Diervilla arborea).	Weigelia.....	Late May..	Various, white, rose.	.....	.....	.....	See chart for summer.

BOTANICAL NAME	COMMON NAME	TIME OF BLOOMING	COLOR	HEIGHT	SOIL AND SITUATION	ADDITIONAL VALUE	REMARKS
Amorpha fruticosa.	False Indigo....	June, early July.	Violet.....	5–15 ft.	Any ordinarily good soil.	.....	Effective shrub. Flowers in terminal racemes.
Azalea calendulacea.	.....	June.....	Orange, yellow.	4–10 ft.	Good soil; moist, half-shaded situation.	Blooms in May also.	Native Azalea, almost equal in coloring to Ghent Hybrids.
Callicarpa purpurea.	.....	August....	Pink flowers.	1–4 ft.	Ordinary soil...	Violet fruit in autumn.	
Calycanthus floridus (Butneria florida).	Carolina All-spice, Strawberry-Shrub, Sweet-Scented Shrub.	June, early July.	Purplish red.	5–6 ft.	Moist.....	.....	Flowers fragrant; good for shrubbery.
Ceanothus Americanus.	New Jersey Tea.	Mid-June, mid-Aug.	White.....	3–4 ft.	Ordinary garden.		
Chionanthus Virginica.	White Fringe....	Early June	White.....	10–30 ft.	Moist, rich, sandy soil; sun.	Blooms in late May; large fruit, purple in autumn.	Shrub or small tree. Delicate, feathery appearance when in bloom.
Clethra alnifolia..	White Alder, Clethra, Sweet Pepper-Bush.	August....	White.....	3–10 ft.	Poor soil, shade; any soil.	Blooms into Sept., foliage bright yellow in autumn.	Useful for its summer flowering in shrubbery or under trees.
Cornus Kousa (Benthamia Japonica).	Japanese Dogwood.	June.....	White.....	10–20 ft.	Any soil, even under large trees.	Crimson fruit in winter.	Foliage and habit more graceful than common Flowering Dogwood; flowers appear with leaves. A rarely planted tree.
Daphne cneorum.	Daphne	Summer...	Rose.....	1 ft.	Light soil; sun..	Blooms fitfully in summer and into September.	
Deutzia.....	Deutzia	June, early July.	White.....	3–6 ft.	Ordinary garden soil.	*D. gracilis* in bloom in late May.	Many varieties. Among best are *D. gracilis*, 3–4 ft., graceful and well-known shrub; later blooming vars.: *D. scabra*, upright flowers; *D.* Pride of Rochester, *D. Lemoinei.*
Elæagnus longipes.	.....	July, Aug..	Orange fruit in August.	4–6 ft.	Well-drained soil, limestone; sun.	Yellow flowers in May.	Small yellow flowers in great abundance.

FLOWERING TREES AND SHRUBS FOR SUMMER EFFECTS—(CONTINUED)

BOTANICAL NAME	COMMON NAME	TIME OF BLOOMING	COLOR	HEIGHT	SOIL AND SITUATION	ADDITIONAL VALUE	REMARKS
Hibiscus Syriacus (Althæa).	Rose of Sharon, Shrubby Althæa.	Late July, August.	Various, white, pink, magenta, red, striped.	6–12 ft.	Ordinary garden soil, but will endure any diet.	Blooms into fall	Shrub used for tall hedges, where it rarely looks well; better in shrubbery. Best vars.: Jeanne d'Arc, *potus albus* (white), Boule de Feu, *Leopoldii*. Many varieties are distressing in color.
Hydrangea paniculata.	Panicled Hydrangea.	August....	White.....	5–15 ft.	Porous soil.....	Blooms into autumn.	Parent of following var.; more graceful in habit.
H. paniculata, var. *grandiflora.*	.....	Mid-Aug...	White, pink.	3–10 ft.	Rich soil.....	Flowers last until November.	Best known Hydrangea. Native *H. quercifolia* and *H. arborescens* interesting.
Hypericum.....	St.-John's-Wort.	July, Aug..	Yellow	1–3 ft.	Light, sandy...	Into September.	Durable summer bloomer. Other vars.: *H. aureum, H. Kalmianum.*
Itea Virginica....	Virginia Willow.	June, Aug. (foliage).	White fls. June, crimson (Aug.) foliage.	4–10 ft.	Any good soil, native of moist.	Brilliant foliage from midsummer to autumn.	Good shrub; not half enough planted.
Kœlreuteria paniculata.	Varnish-Tree....	July.....	Yellow....	20–25 ft.	Rich soil.....	.....	Flowers in large, loose clusters like lilac panicles. A sturdy, satisfactory little tree.
Lonicera.....	Honeysuckle	June flowers, Aug. fruit.	Crimson fruit August.	.....	.....	Blooms in June.	Showy in fruiting; dense shrub; *L. Morrowii* and *L. Tatarica*, white and pink flowers in June.
Philadelphus coronarius.	Syringa, or Mock-Orange.	June.....	White.....	10 ft.	Ordinary good soil.	.....	An old garden favorite. *P. grandiflorus* a good var.; *P. Gordonianus* 10 days later.
Rhus cotinus (Cotinus cotinus).	Smoke-Tree.	June, mid-July.	Fawn-color varying to reddish purple.	6–20 ft.	Ordinary soil; poor soil tolerated.	Small flowers in May.	An old garden favorite, with a strong and attractive individuality in its feathery seeding state. Var. *atropurpurea* is a deeper purple in its seeding effect.
Robinia hispida..	Rose-Acacia, Moss-Locust.	June, July.	Rose.....	2–8 ft.	Ordinary soil...	Interesting fruit-pods.	Racemes of rose-colored flowers suggesting Sweet Peas. Blooms slightly in summer.
Rosa Carolina....	Swamp-Rose, Carolina Rose.	Summer...	Bright .... pink.	5–7 ft.	Good soil.....	Brilliant fruit...	Some vars. of single native Roses blossom occasionally all summer. Also Japanese *R. rugosa.*

R. Wichuraiana..	Memorial Rose, Japanese Trailing Rose.	July, Aug.	White.....	.....	.....	.....	Half-evergreen trailing rose. Fragrant; shining foliage; blooms slightly all summer.
Spiræa Bumalda, var. Anthony Waterer.	Waterer's Spiræa.	June, July, August.	Crimson...	2–3 ft.	Moist, rich soil.	.....	*S. Bumalda* is a rather coarse shrub, effective in mass. Large, flat-topped flower-heads. Var. Anthony Waterer, dwarf, crimson, is a mass of color all summer.
S. Bumalda.....	Bumald's Spiræa.	July, Aug..	Dull crimson.	3 ft.	Ordinary soil, moist preferred.	.....	
S. Douglasi.....	.....	Late June, August.	Deep pink	8 ft.	Moist soil.....	.....	Good in shrubbery. Large racemes of flowers.
S. van Houttei....	Van Houtte's Spiræa.	June.....	White.....	4–6 ft.	Ordinary garden soil.	.....	One of the best Spiræas. Graceful arching sprays covered with bloom late May to end of June; good for hedges.
Stuartia pseudocamellia.	Japanese Stuartia	Mid-July, mid-Aug.	White, golden stamens.	6–15 ft.	Rich, moist soil.	Leaves brilliantly colored in autumn, crimson and gold.	Rare and unusual tree. Flowers of great delicacy.
Styrax Japonica..	Japanese Styrax.	June.....	White.....	8–12 ft.	Moist, light soil.	.....	Branches thickly set in with delicate bells. *S. Obassia* earlier.
Tamarix.....	Tamarisk.....	Summer...	Pale coral-pink, old rose.	10–15 ft.	Sandy soil, seashore.	Blooms into Sept. (*T. Indica*).	Excellent for seaside or poor soil. Apt to grow scraggy in age. *T. Africana* blooms in June, *T. Gallica* in July, *T. Indica* in August.
Viburnum opulus.	High-Bush Cranberry.	Aug. fruit..	White fls. late June, crimson fruit Aug.	4–10 ft.	Ordinary soil...	Fruit lasts throughout winter.	Shrub of infinitely more variety than its better known offspring, the Common Snowball.
V. tomentosum...	.....	June flower.	White fls., red fruit in Aug.	8 ft.	Ordinary soil...	Fruit reddish, last black.	Valuable shrub. Effective from June until winter.
V. tomentosum, var. *plicatum.*	Japanese Snowball.	June.....	White.....	6–10 ft.	Ordinary soil...	Good foliage, tinged with bronze when young.	More graceful habit than Common Snowball.
Weigelia (Diervilla rosea).	.....	June.....	Various, rose, crimson, white.	.....	Good soil.....	Blooms in late May.	Useful and much-planted shrubs. *W. Lavallei* and others bloom slightly until midsummer. Best vars.: Var. *Lowei;* var. A. Carrière, rose-carmine, changing to red; Eva Rathka. *W. rosea* most common and a good variety.

FLOWERING TREES AND SHRUBS FOR AUTUMN EFFECTS

BOTANICAL NAME	COMMON NAME	TIME OF EFFECT	COLOR	HEIGHT	SOIL AND SITUATION	ADDITIONAL VALUE	REMARKS
Baccharis halimifolia.	Groundsel-Tree..	Sept., Oct..	White.....	3–9 ft.	Ordinary soil, seacost no objection.	.....	Flowers inconspicuous; white, fluffy pappus suggesting cotton or seeding Milkweed; lasts long time.
Caryopteris mastacanthus.	Blue Spiræa.....	Sept., Oct..	Lavender-blue.	1–5 ft.	Well-drained soil.	.....	Soft, fluffy-looking plant. Bloom lasts until frost. Not hardy north of New York.
Hamamelis Virginiana....	Witch-Hazel	Late Oct., Nov.	Yellow	25 ft.	Moist, peaty soil.	.....	Delicate, threadlike flowers. Good for undergrowth in woods or tall s rubbery.
Hibiscus Syriacus.	Rose of Sharon..	Sept., mid-Oct.	Various, white, rose, variegated.	10–20 ft.	.....	Blooms in August.	Generally lasts until frost. Var. *totus albus* usually holds out latest. See foregoing chart.
Hydrangea paniculata.	.....	September..	White.....	.....	.....	.....	See foregoing chart.
Hypericum prolificum.	Shrubby St.-John's-Wort.	September..	Yellow	.....	.....	.....	See previous chart.
Lespedeza Sieboldii (Desmodium penduliflorum).	.....	Sept., mid-October.	Rose-purple.	6 ft.	.....	Blooms in August.	Charming summer-like looking plant. Long stalks covered with panicles of pea-like flowers; valuable in the autumn shrubbery. Dies back; should be cut down every spring.

BOTANICAL NAME	COMMON NAME	TIME OF EFFECT	COLOR OF FRUIT	HEIGHT	SOIL AND SITUATION	ADDITIONAL VALUE	REMARKS
Berberis Thunbergii.	Thunberg's Barberry.	Sept., Mar.	Scarlet.....	2–4½ ft.	Ordinary soil; prefers dry; sunshine.	Yellow flowers in April–May. Brilliant foliage.	Dense, compact shrub. Excellent for hedges. *B. vulgaris* (orange-scarlet berries) better for mixed shrubbery; latter also more graceful in habit. Varies greatly in different individuals.
B. vulgaris.....	.....	Sept., Oct.	Scarlet.....	3–10 ft.	Ordinary soil; prefers dry; sunshine.	Yellow flowers in April-May. Brilliant foliage.	
Callicarpa purpurea.	Beauty-Fruit....	Sept., Oct.	Lillac-violet.	1–4 ft.	Ordinary garden soil.	Pink flowers in August.	Decorative shrub. Slender sprays thickly set with berries large as shot. Give slight protection in winter.
Cornus alba.....	Red-Stemmed Dogwood.	Sept.....	Bluish-white.	5–10 ft.	Any soil, shade or sun.		
C. Amomum.....	Swamp-Dogwood, Silky.	Sept., Oct.	White, late dark blue.	3–10 ft.	Any soil, shade or sun.	Purplish stems in winter.	Loose-growing, graceful shrub. Berries in large, rich clusters; very decorative. Good in shrubbery.
C. candidissima..	Panicled Dogwood.	Sept., Oct.	Ivory-white.	5–10 ft.	Any soil, shade or sun.	White fls. May–June.	Berries borne in great profusion. Red peduncles, after birds have disposed of fruit, give delicate spring-like effect of airy red. Valuable sort.
Cratægus crus-galli.	Cockspur Thorn.	Sept., Mar.	Orange-scarlet.	.....	.....	.....	*Cratægus* is very brilliant in its autumn fruiting. *C. oxyacantha* (Hawthorn), bright scarlet, *crus-galli* (Cockspur Thorn). *Coccinea, cordata* especially brilliant. See chart for spring effects.
Euonymus Sieboldianus (E. Yeddoensis).	Japanese form of Burning-Bush.	Sept., Oct.	Coral-pink, scarlet seed-globules.	6–10 ft.	Ordinary garden soil.	Inconspicuous flowers June. Regular shape.	One of the most brilliantly decorative of all autumn shrubs. Dense clusters of pendent seed-vessels give effect of profuse blooming. Slow growth. Too individual for shrubbery or mass-planting.
Hippophae rhamnoides.	Sea-Buckthorn..	Oct., Mar.	Orange.....	6–15 ft.	Ordinary garden soil to barren seashore.	Leaves silvery on underside.	Especially valuable for seashore. Male plants should be included, or berries may be deficient. Stiff growth.
Ilex verticillata (Prinos verticillata).	Black Alder.....	Oct., Mar.	Scarlet.....	5–10 ft.	Moist soil.....	White flowers in July (inconspicuous).	Good for shrubbery. Slender branches thickly set with small vivid berries.

FRUITING TREES AND SHRUBS FOR AUTUMN EFFECTS—(CONTINUED)

BOTANICAL NAME	COMMON NAME	TIME OF EFFECT	COLOR OF FRUIT	HEIGHT	SOIL AND SITUATION	ADDITIONAL VALUE	REMARKS
Ligustrum ibota...	Japanese Privet.	Oct., Mar.	Black.....	6–10 ft.	Any soil; dry, sun or shade.	Small flowers in May.	Berries size of shot, in clusters looking like large blackberries. *L. Amurense*, and some of its varieties; *L. Meadia* also good in fruit.
Lonicera.....	Upright Honeysuckle.	Sept.....	Red.....	.....	.....	.....	See foregoing chart.
Rhamnus cathartica.	Common Buckthorn.	Oct., Nov.	Black.....	6–12 ft.	Dry soil.....	White fls. in May.	Good hedge-plant. Handsome, substantial-looking foliage. Plant free from insect pests.
Rhodotypos kerrioides.	White-Flowered Kerria.	Oct., Nov.	Black.....	3–6 ft.	.....	White fls. in June.	Good for shrubbery.
Rosa.....	.....	Sept., Nov.	Scarlet, vermilion.	.....	.....	.....	*R. Carolina, R. humilis, R. lucida, R. rugosa, R. rubiginosa*, especially decorative with brilliant scarlet hips. See chart for summer effects.
Symphoricarpos racemosus.	Snowberry, Waxberry.	Sept., Nov.	White.....	3–5 ft.	Ordinary soil...	Holds fruit into winter.	Effective in shrubbery or border. Delicate sprays heavily freighted with waxen berries. Newer varieties heavier-laden. *S. molle* almost over-weighted.
S. vulgaris.....	Indian Currant, Coral-Berry.	Sept., Nov.	Purplish red raspberry-color.	2–5 ft.	Any soil, heavy clay to gravel	Holds fruit into winter.	Effective in shrubbery or along roadside.
Symplocos cratægoides.	.....	Sept., Oct.	Turquoise-blue.	6–10 ft.	Rich soil, well-drained; sun.	Good shape. Inconspicuous, fragrant flowers May–June.	Very rare and unusual effect. Berries of a peculiar turquoise to peacock-blue, set thickly among slender, sharp-pointed leaves.
Viburnum cassinoides.	White Rod.....	Sept., Oct.	Pink, blue, and black successively.	6–12 ft.	Ordinary soil...	White flowers June, July.	Viburnums are indispensable for autumn coloring in berries. Native varieties hardly surpassed by garden hybrids. Fruit not so popular with birds as Cornus.
V. dilatatum.....	.....	Sept., Oct.	Scarlet.....	10 ft.	Ordinary soil...	White fls. May, June.	
V. lantana.....	Wayfaring-Tree..	Sept., Oct.	Bright red, changing to black.	8–20 ft.	Good for dry situations.	White fls. May, June.	[*Prunus maritima* and others among *Prunus, Pyrus floribunda, Cornus florida*, etc., are notable in fruiting, also *Pyrus Americana*, the Mountain-Ash.]
V. opulus.....	High-Bush Cranberry.	Sept., Oct.	Scarlet.....	12 ft.	Good for dry situations.	White fls. May, June, berries color in July.	

The following shrubs and trees, noticed elsewhere, have notably brilliant foliage in autumn. *Amelanchier botryapium* (golden-yellow), *Cerdidiphyllum Japonicum* (bright yellow, scarlet), *Cornus florida* (deep crimson), *Cratægus* (orange-scarlet), *Euonymus alatus* (vivid, uniform rose-color—very brilliant), *Oxydendron arboreum* (crimson-bronze), *Rhus glabra* (scarlet-orange), *Rhus Osbeckii* (reddish fawn, orange). Also Japanese Maples.

IV. WINTER TREES AND SHRUBS OF BRIGHTLY COLORED BARK FOR WINTER EFFECTS

BOTANICAL NAME	COMMON NAME	TIME OF EFFECTIVENESS	COLOR OF STEMS	HEIGHT	SOIL AND SITUATION	ADDITIONAL VALUE	REMARKS
Cornus alba (C. sanguinea).	Red-Stemmed Dogwood.	Nov.–Mar.	.....	5–10 ft.	Ordinary soil...	Bluish, white berries in autumn.	Most vivid color in winter landscape; toward March, stems are even brighter. Invaluable in shrubbery.
C. Amomum (C. sericea).	Swamp-Dogwood, Silky Dogwood.	Nov.–Mar.	Purplish...	6–10 ft.	Ordinary soil; succeeds in moist.	Dark-blue or white fruit in autumn; white flowers June, July.	Attractive in winter. See foregoing chart.
C. stolonifera.....	Red-Osier Dogwood.	Nov.–Mar.	Dark blood-red.	3–6 ft.	Ordinary; prefers moist.	Flowers in June, July; whitish fruit in autumn.	Stems at their best in March. Not so brilliant a shrub as *C. alba*.
C. stolonifera, var. *aurea*.	Golden-Twigged Dogwood.	Nov.–Mar.	Clear yellow.	3–6 ft.	Ordinary; prefers moist.	.....	Slender stems; attractive in winter.
Kerria Japonica..	Corchorus, Globeflower.	Nov.–Mar.	Bright green.	4–10 ft.	Ordinary soil...	Yellow flowers May, June.	
Salix vitellina, var. *aurea*.	Yellow Willow..	Nov.–Apr.	Golden yellow.	25 ft.	Moist soil.....	Color deepens in early spring.	

TREES AND SHRUBS FOR WINTER FRUITING EFFECTS

BOTANICAL NAME	COMMON NAME	TIME OF EFFECTIVENESS	COLOR OF FRUIT	HEIGHT	SOIL AND SITUATION	ADDITIONAL VALUE	REMARKS
Berberis Thunbergii.	Thunberg's Japanese Barberry.	Oct.–Mar.	Scarlet.....	2–4 ft.	Ordinary soil; sun.	Bril't crim. foliage in autumn; yel. fls. May.	Excellent hedge-plant. Berries sometimes remain until spring.
B. vulgaris.....	Common Barberry.	Oct.–Jan.	Orange-scarlet.	6–10 ft.	.....	.....	See autumn chart.
Cratægus.....	Thorn.....	Oct.–Mar.	Scarlet.....	.....	.....	.....	*C. crus-galli* holds its fruit well, also *C. cordata.* See foregoing chart.
Hippophae rhamnoides.	Sea-Buckthorn ..	Oct. to hard frost	Orange.....	.....	.....	.....	Berries liable to turn gray in a hard frost. See foregoing chart.
Ilex verticillata (Prinos verticillata.)	Black Alder.....	Oct.–Mar.	Scarlet.....	.....	.....	.....	One of the best trees for winter effect. See foregoing chart.
Ligustrum.....	Privet.....	Oct.–Feb.	Black.....	6–10 ft.	Any soil; stand shade.	White fls. June, July.	*L. ibota, L. Meadia, L. Amurense,* best for fruiting.
Symphoricarpos racemosus.	Snowberry.....	Nov., Dec.	White.....	.....	.....	.....	Good for shrubbery or roadside planting.
S. vulgaris.....	Indian Currant..	Oct.–Mar.	Purplish red.	.....	.....	.....	Fruit borne in abundance. Slender stems set thickly with tiny berries, which become dulled toward March. See foregoing chart.
Rosa.....	Single Roses.....	Oct.–Mar.	Scarlet.....	.....	.....	.....	*R. Carolina, R. humilis, R. lucida, R. nitida,* hold their fruit throughout winter. Most striking are the stout brown stems and large red hips of the Japanese Ramanas Rose—*R. rugosa.* See foregoing chart.
Viburnum.....	High-Bush Cranberry.	Nov.–Dec.	Dull crimson	.....	.....	.....	Viburnum fruit lasts sometimes into winter, but stalks look usually a bit draggled at this time. See foregoing chart.
V. opulus.....	.....	.....	.....	.....	.....	.....	

GARDENER'S CALENDAR

(LATITUDE OF NEW YORK CITY)

JANUARY

Plan the garden.

Branches of Forsythia, Jasminum, plum and cherry may be brought indoors for forcing.

FEBRUARY

Order plants and fertilizers and tools—"to be shipped such and such a date."

Plan the garden.

Start seeds indoors of certain perennials and annuals.

Make cuttings.

Prune roses (late Feb.) and grape-vines.

MARCH

Deciduous trees and shrubs and hardy perennials are the earliest plantings; these may be set out as soon as the ground can be worked. The sooner roses are planted, the better. In the South such planting is done in January and February. In the North, in the latitude of New York, the planting season for such is reckoned from March 15 until May 15—from the time the ground is "open" until growth actually begins. These dates are approximate, of course, and vary according to the lateness or earliness of the season. Six days are allowed for each hundred miles of latitude.

Uncover and prune your roses now. Prune also hydrangeas and other late-flowering shrubs. Do not prune early ones.

A new lawn is best made now.

Fruit-trees should be sprayed for scale. If you don't know how to do it, send to the Department of Agriculture, Washington, D. C., for Bulletin No. 243.

Sweet peas may be sown as early as the ground can be worked. Give them rich soil, plant in a trench six inches deep, covering to the

depth of two inches. When the seedlings are tall enough fill in the rest of the soil. Poppies may be sown March 15. They prefer light, sandy soil. Sow very lightly.

Aside from these, sowings in March had better be made in the hotbed or cold-frame. See Chart.

A little skill in the management of hotbeds or cold-frames is a valuable auxiliary. Cold-frames, especially, are very easily managed. To tender annuals an infancy spent in the kind nursery of the cold-frame is safe from the hazard of a late frost, also the blooming period is lengthened; while many perennials, unless given this "head start," would keep the gardener waiting for blossoms until the second year.

Seeds may be sown in boxes and placed in the frames, or, if the soil be a finely pulverized loam, sown directly in the ground. Here is a list or two that may be of help:

APRIL

All the March work which in the New England phrase, "didn't get 'round to" must be done directly.

If you have not already done so, order seeds and plants and commercial fertilizer (if you have not well-rotted manure).

Plant tender annuals in hotbeds or cold-frames. It is too late for starting perennials here. Thin seedlings in the cold-frame. If crowded they become "leggy" and weak.

Prune fruit-trees and grape-vines if the sap has not begun to flow. If you don't know how, it is better to leave them alone. No pruning is far better than wrong pruning. Do not prune hardy roses—it is too late; nor spring-flowering shrubs—it is too early.

To prepare the ground for planting is of chief importance. A careful preparation of the soil is as essential to the success of a garden as a well-ordered kitchen is to the comfort of a household.

What You Can Plant in April

Trees and Shrubs: All deciduous trees and shrubs are best planted now. Hardy roses must be set out as soon as possible.

Perennials: All hardy perennials may be planted now.

Annuals: The following may be sown from April 15 to 30 (latitude of New York), or as soon as danger from severe frost is over. Candytuft, California poppy, *Drummond's phlox, *marigold (African), *marigold (French), morning-glory, nasturtium (tall), nasturtium (dwarf), petunia, sweet alyssum, sweet peas, *tobacco-plant, *zinnia; also *balsam, coreopsis, corn-flower, *cosmos, Japanese pink, Shirley

poppies, portulaca, mignonette. These are by no means all the annuals, but they are the most all-round satisfactory ones for the average gardener. Those marked * are best sown in the seed-bed and transplanted when two or three inches high to their permanent home. Those unmarked should be sown where they are to grow.

MAY

A BELATED GARDENER'S CALENDAR FOR MAY

(LATITUDE OF NEW YORK)

Week of April 25–May 2	Plant deciduous shrubs and trees without delay. Plant vines (if young growth is cut back). Plant evergreens and rhododendrons. Plant tea-roses from pots. Sow any hardy annuals if not already planted. Plant gladioli, dahlias, and other tender bulbs and tubers. See p. 108. Spray roses with whale-oil soap before leaves open.
May 2–9	Plant shrubs and trees; cut back hard if leaves have started. Plant Hortensis hydrangeas, such as "Otaksa," and "Thomas Hogg." Sow tender annuals. Begin "hardening off" annuals in hotbeds and cold-frames. Begin looking for cutworms. Prune shrubs that have finished blooming, and no others.
May 9–16	Plant out petunias (from pots). Plant vines—ampelopsis, clematis, etc. (from pots). Make second sowing of mignonette. Thin early-sown annuals. Give roses potassium sulphide.
May 16–23	Transplanting—begin setting out annuals from frames. Sow moon-vine (not before this week). Perennials—spray hollyhocks with Bordeaux to prevent rust. Roses—spray with whale-oil soap (buds set).
May 23–30	Plant out annuals from flats to open. Plant tube-roses. Roses—give liquid manure. Keep ahead of the weeds. Thin annuals.

For Porch-Boxes and Window-Boxes.—Lobbianum nasturtiums, petunias, miniature marigolds, *Lobelia erinus*, candytufts, dwarf chrysanthemums, *Browallia.*

For spring-blooming window-boxes buy pansy plants already grown if you haven't them started, and fill the boxes for a shady side with these or forget-me-nots. With plenty of water they bloom all summer.

JUNE

Garden Work You Can Do in June

June is a delightful month to any gardener. There is work to be done a-plenty, but there is also the intense happiness of seeing fufilment within reach—when larkspurs and hollyhocks begin to tower above their fellows and poppies rush into their full perfection and the roses queen it in the garden. It was Celia Thaxter who used to be up at four of a June morning, at work in her garden, weeding and transplanting in the soft, mellow earth of her flower-beds. But not many gardeners have devotion enough to follow in her train.

Now is the Time to Select rhododendrons and peonies and irises. In these plants the colorings are so positive and so varied that by far the best way of getting precisely what you want and being sure of not getting what you don't want is to select your sorts when they are in blossom and have them marked for later shipment.

Plan a Rose-Garden.—Roses cannot be planted until October, but now is the best of times for planning and selecting the sorts. The order sent in now will keep quite as well on the books of a good rose-grower as in your head.

Thinning and Weeding must be thoroughly done.

Staking.—If possible conceal the stake. The object of staking is to support the plant, but its natural habit should not be interfered with. Tie loosely; do not give a plant the appearance of a stout lady with a tight waistband. The new bird-sticks are very interesting as garden-stakes.

Filling Up Gaps.—After narcissi, tulips, and daffodils have done flowering, when the leaves begin to turn yellow (but not before) the foliage can be cut off and the vacant spaces in the beds filled with seedlings from the seed-bed, or "reserve" garden, which every well-ordered garden maintains. Drummond's phlox, scabiosa, asters, and the like are tucked in wherever there is room for them.

GARDENER'S CALENDAR

Bedding-Out Plants May be Set Out Now Such as

Ageratum.	Fuchsia.	Lemon verbena.
Begonia.	Geranium.	Lobelia.
Carnation.	Heliotrope.	Salvia splendens.

Bulbs and Tubers You Can Plant Now.—During all this month dahlias, cannas, gladioli, ismene may be planted, also foliage plants, such as the caladiums.

JULY AND AUGUST

Biennials Which May be Sown in Late July and Early August

Biennial Evening-Primrose.	Canterbury Bells.	Foxglove.
Hollyhocks.	Iceland poppies.	Sweet William.
	Wallflowers.	

See p. 101.

Perennials Which May be Sown in July and Early August

Columbine.	English daisies.	Pansies.
Larkspur.	*Viola cornuta.*	

Sow in the seed-bed to transplant in October to their permanent homes. This is the best time for sowing most perennials.

Lilies Which May be Planted in August

American Turk's Cap.	Canadian Bellflower.	Madonna Lily.

SEPTEMBER

Best time for starting a new garden.

Divide perennials that have finished blooming.

Set out the earliest bulbs, such as snowdrop, crocus, scilla, chionodoxa, grape hyacinth, etc.

Good time to make a new lawn.

Young perennials may be set out in permanent positions.

OCTOBER

Plant hardy perennials, especially spring-blooming sorts.

Plant spring-flowering bulbs.

Pot bulbs and store for indoor blooming.

Take up annuals from the garden for the window-garden.

After 15th, plant trees (deciduous).

Best time for planting roses and making a rose-garden.

Take up tender bulbs and tubers, such as tuberous begonias, gloxinias, etc.

NOVEMBER

Take up and store all tender plants, if not already out of harm's way: Fuchsias, hydrangeas (pot-grown), dahlias, caladiums, gladioli, cannas, etc.

Plant trees until the ground is frozen (if you will mulch them).

Set out bulbs for spring-blooming, although October is better.

Pot bulbs for indoor blooming.

DECEMBER

Protect roses and other slightly tender plants.

Give the garden a mulch of manure or stable litter.

Bulbs may be planted if the ground is open, also potted for indoor bloom.

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